

**S B**

331

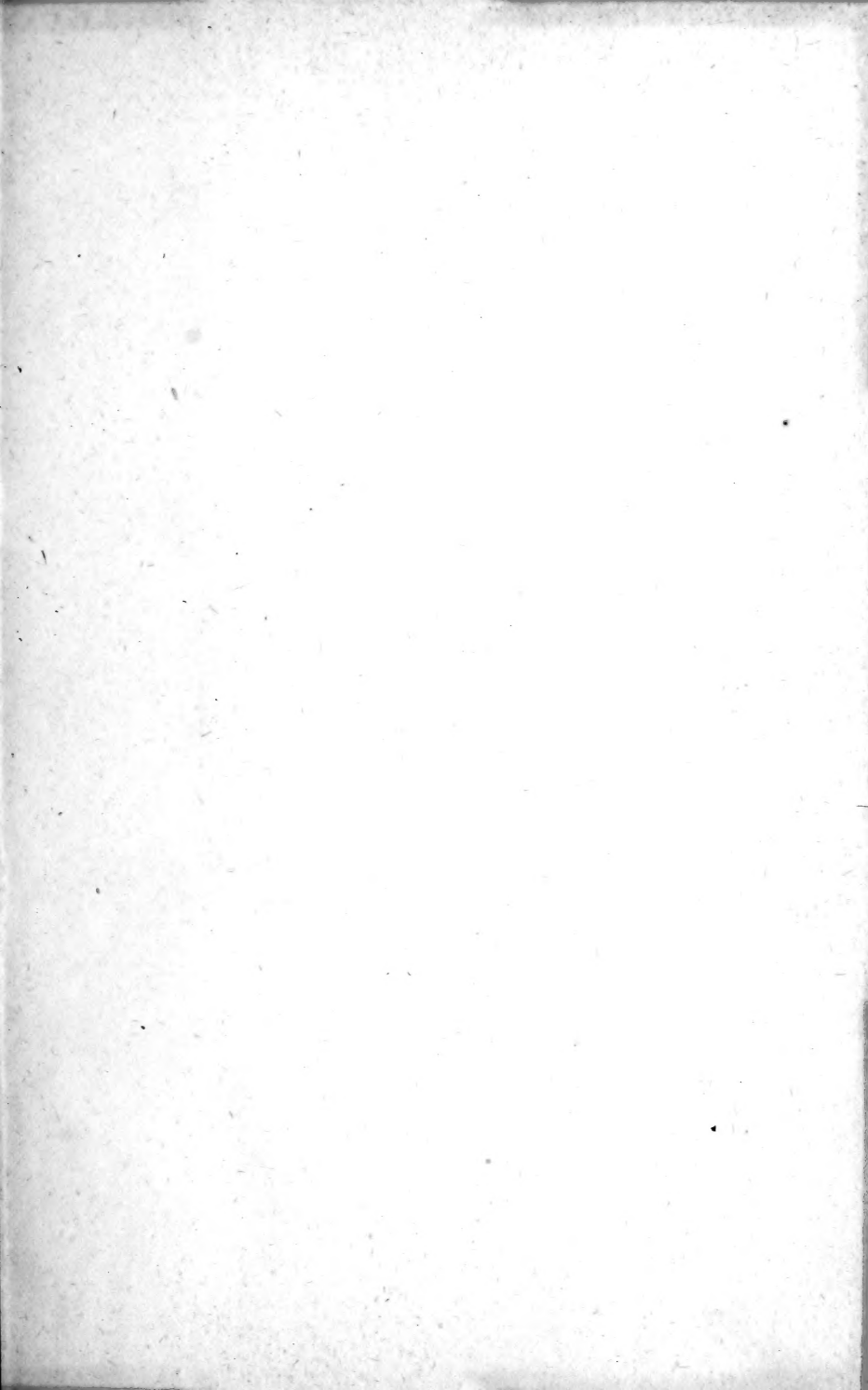
P37

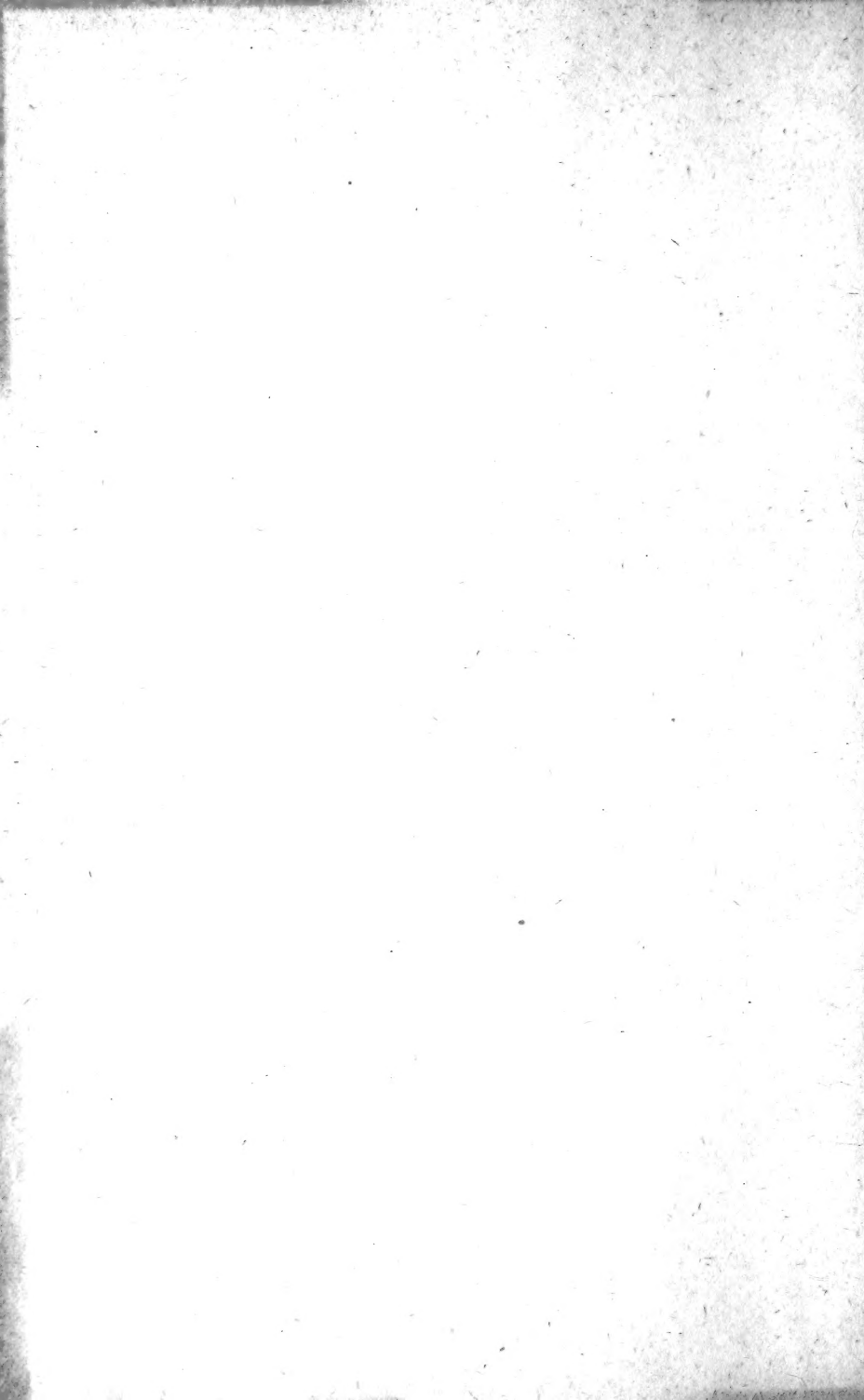
LIBRARY OF CONGRESS.

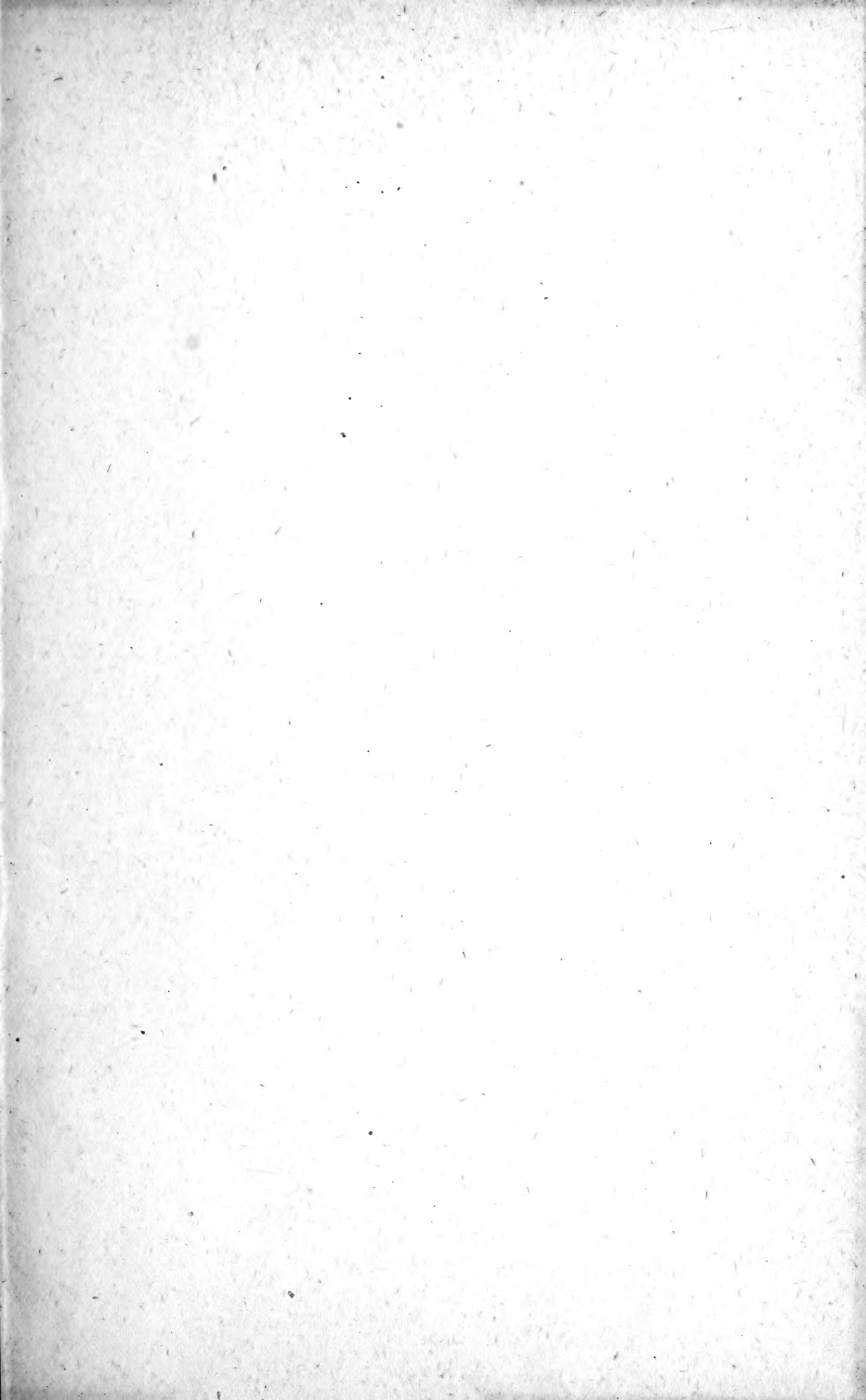
SB331  
Chap. .... Copyright No. ....

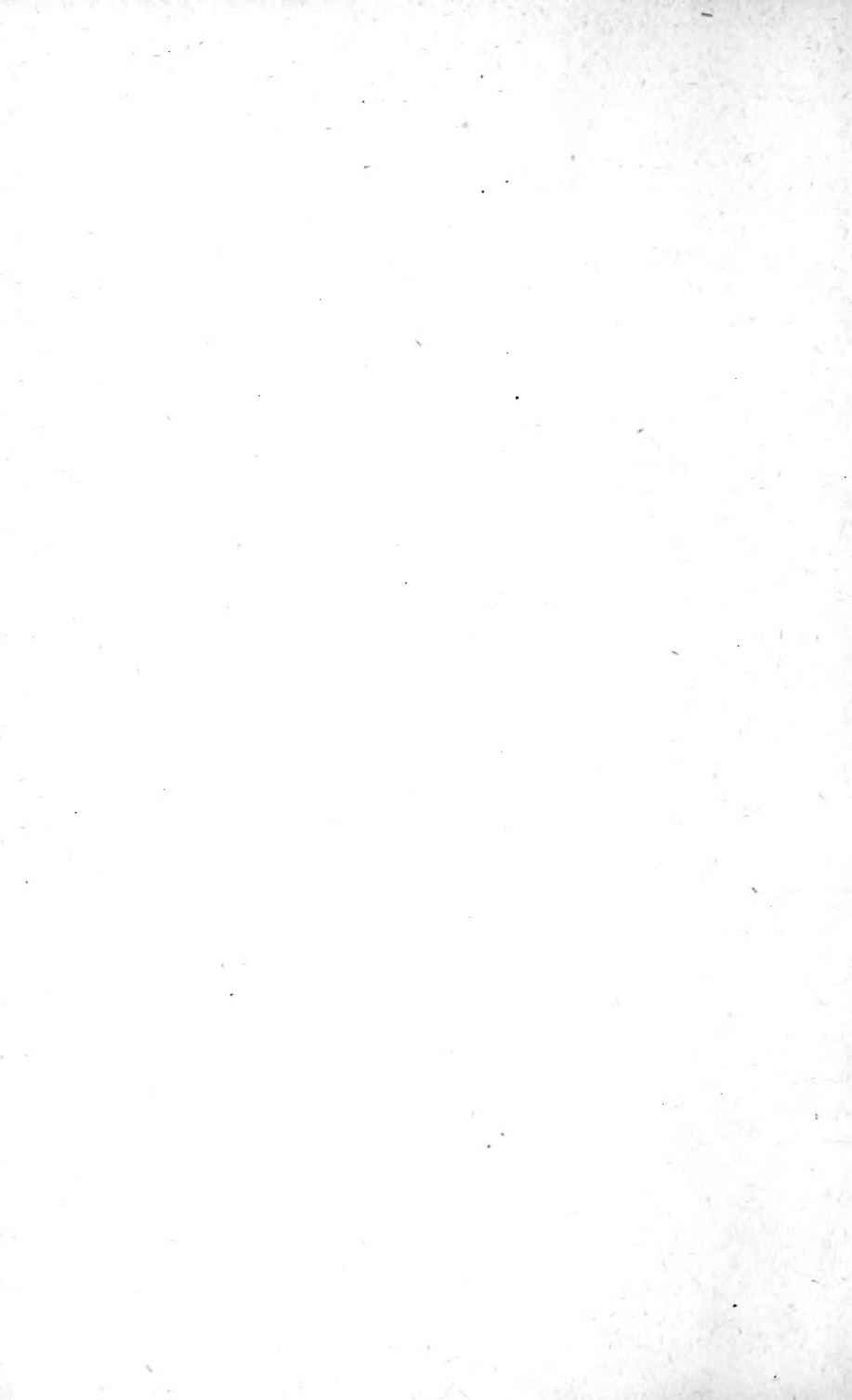
Shelf P3.7

UNITED STATES OF AMERICA.









2.6.

# HOW TO GROW CABBAGES AND CAULIFLOWERS MOST PROFITABLY.

BY  
J. PEDERSEN (BJERGAARD), OF DENMARK,  
AND  
G. H. HOWARD, OF LONG ISLAND.

EDITED BY  
W. ATLEE BURPEE.



1888.  
PUBLISHED BY  
W. ATLEE BURPEE & CO., SEED GROWERS,  
NOS. 475 AND 477 NORTH FIFTH STREET,  
NOS. 476 AND 478 YORK AVENUE,  
PHILADELPHIA.

---

COPYRIGHTED, 1888,  
By W. ATLEE BURPEE & CO.

---

SB331  
P37



# CONTENTS.

---

	PAGE
EDITOR'S PREFACE, . . . . .	vii
 HOW TO GROW CABBAGES AND CAULIFLOWERS MOST PROFITABLY, 9	
The Best Soil for Cabbages, . . . . .	10
The Cabbage Plant is a Greedy Feeder, . . . . .	11
Early Cabbages, . . . . .	15
Late Cabbages, . . . . .	19
The Cauliflower, . . . . .	23
Cauliflowers for Winter Use, . . . . .	34
Enemies of the Cauliflower, . . . . .	36
Packing for Distant Markets, . . . . .	37
 HOW TO GROW CAULIFLOWERS SUCCESSFULLY, . . . . . 39	
Selection of Land, . . . . .	39
Making the Seed-Bed and Sowing the Seed, . . . . .	39
Fertilizers, and How to Apply Them, . . . . .	40
Transplanting, . . . . .	41
Cultivation, . . . . .	42
Tying and Bleaching, . . . . .	42
Cutting of Cauliflowers, . . . . .	43
Trimming, . . . . .	43
Packing, . . . . .	44
Conclusion, . . . . .	45
 HOW TO GROW CABBAGES SUCCESSFULLY, . . . . . 46	
Selection and Preparation of Land for Early Cabbages, . . . . .	46
Insects, . . . . .	47
Cultivation, . . . . .	48
Cutting and Marketing, . . . . .	48
Late Cabbage.—Soil and Preparation, . . . . .	48

	PAGE
Planting and Cultivation of Late Cabbage, . . . . .	49
Marketing, . . . . .	49
 VARIETIES OF CABBAGE, . . . . .	 51
Extra Early Express, . . . . .	51
Earliest Etampes, . . . . .	52
Early Jersey Wakefield, . . . . .	52
Early Winningstadt, . . . . .	53
Early Dwarf Flat Dutch, . . . . .	54
Early Summer, . . . . .	54
Peerless Early, . . . . .	54
The Vandergaw, . . . . .	56
Fottler's Brunswick (Short Stem), . . . . .	58
Early Bleichfield Giant, . . . . .	58
All Seasons, . . . . .	59
Early Deep-Head, . . . . .	59
Burpee's Surehead, . . . . .	60
Danish Ball Head, . . . . .	61
Large Late Flat Dutch, . . . . .	62
Large Late Drumhead, . . . . .	62
Louisville Drumhead, . . . . .	62
Burpee's Short-Stem Drumhead, . . . . .	63
Filderkraut, . . . . .	64
Green Glazed, . . . . .	65
Marblehead Mammoth, . . . . .	65
Early Paris Savoy, . . . . .	66
Early Dwarf Ulm Savoy, . . . . .	66
Perfection Drumhead Savoy, . . . . .	66
Early Blood-Red Erfurt, . . . . .	67
Large Red Drumhead (Improved Red Dutch), . . . . .	67
 VARIETIES OF CAULIFLOWER, . . . . .	 68
Extra Early Dwarf Erfurt, . . . . .	68
Large Early White Erfurt, . . . . .	68
Early Snowball, . . . . .	69

# CONTENTS.

V

	PAGE
Burpee's Best Early Cauliflower, . . . . .	69
Algiers, . . . . .	71
Veitsch's Autumn Giant, . . . . .	71
CAULIFLOWERS AND CABBAGES, . . . . .	72
Directions for Cooking and Preparing for the Table, . . . . .	72
Stewed Cauliflower, . . . . .	72
Cauliflower au Naturel, . . . . .	72
Cauliflower with Brussels Sprouts, . . . . .	73
Cauliflower with Parmesan Cheese, . . . . .	73
Cauliflower a la Louis Quatorze, . . . . .	74
Cauliflower with Oil-Sauce, . . . . .	74
Cauliflower Pickles, . . . . .	75
HOW TO COOK AND PREPARE CABBAGE, . . . . .	75
Browned Cabbage Head, . . . . .	75
Stewed Cabbage, . . . . .	76
Cabbage with Forced Meat, . . . . .	76
Filled Cabbage, . . . . .	76
Cabbage au Gratin, . . . . .	77
Cabbage Dolmas, . . . . .	78
Cabbage Callops, . . . . .	78
Saurkraut, . . . . .	78
How to Make Saurkraut, . . . . .	79
Magdeburg Saurkraut, . . . . .	80
Quickly Prepared Saurkraut, . . . . .	81
Browned Saurkraut, . . . . .	81
Stewed Saurkraut, . . . . .	82
Stewed Saurkraut with Cream, . . . . .	82
Stewed Red Cabbage, . . . . .	83
Stewed Savoy Cabbage, . . . . .	83
Cauliflower Soup, . . . . .	84
Cabbage Soup, . . . . .	84
Plain Cabbage Soup, . . . . .	85



## EDITOR'S PREFACE.

---

The widespread need for complete information on the growing and marketing of Cabbages and Cauliflowers, has repeatedly been brought to our notice by numerous inquiries from farmers and gardeners desirous of growing these crops by the acre, for market. To answer these inquiries in detail by letter was impossible, and in order to fully meet the want of adequate information, we offered, in BURPEE'S FARM ANNUAL FOR 1887, cash prizes for the two best essays on the subject. These prizes resulted in considerable competition. After thorough and careful readings, the first prize was awarded to Mr. J. PEDERSEN (BJERGAARD), of DENMARK, and the second prize to Mr. G. H. HOWARD, of SUFFOLK COUNTY, L. I. Both of these essays are published in this book, together with an Appendix upon the cooking of these vegetables, kindly furnished by Mr. S. J. SOYER, chief cook to His Majesty, the King of Denmark. Mr. Soyer's recipes will particularly interest the ladies, and will doubtless tend to increase the popularity in America of these wholesome and palatable vegetables.

For the benefit of those of our readers not familiar with the best sorts to grow, we have added

an illustrated chapter, giving descriptions of the leading varieties of cabbage and cauliflower best adapted for culture in the United States. Altogether we have aimed to make this little "How to Grow" treatise complete in every detail. That it is a thoroughly trustworthy guide, the reputation of the writers of the prize essays is ample assurance. Mr. J. PEDERSEN, in whose company we traveled through Denmark in 1886, seeing much of interest in farming and gardening, is a well-known writer, and has handled his subject in a most comprehensive manner. In some instances we have noted where his methods are unnecessarily laborious for this country ; but were it not for his complete treatment of details, this work would lose much of its value. Mr. G. H. HOWARD, living in the very centre of the famous cauliflower district of Eastern Long Island, is admitted to be one of the most extensive and successful growers of both cauliflowers and cabbages in the United States. Without any superfluous words, he tells, in a plain, practical manner, how to grow these important crops, with which he has had marked success for many years.

W. ATLEE BURPEE.

*January 12th, 1888.*

# HOW TO GROW CABBAGES AND CAULIFLOWERS MOST PROFITABLY.

---

BY J. PEDERSEN (BJERGAARD).

With an Appendix upon the Cooking of these Vegetables, furnished by  
Mr. S. J. SOYER, Chief Cook to His Majesty the King of Denmark.

Of the plants that from time immemorial have been objects of human husbandry, and cherished articles of food for rich and poor, the cabbage plant is one of the oldest we know of. For at least two thousand years it has been one of the most prominent garden crops. The Jews and the Egyptians cultivated it, and it is interwoven with the myths of the Greeks. One version claimed that the cabbage plant sprang up from the sweat of Jupiter when once upon a time His Divine Majesty was called upon to divine the meaning of two contradictory answers by an oracle; another, that Bacchus whipped Lykurgus with a grape

vine until he (Lykurgus) shed tears from pain, which gave origin to the cabbage, that, in revenge against the said Godhead, had the virtue that it could make intoxicated persons sober. Pythagoras recommended the cabbage as a means of keeping man in "good humor and courage." But enough about Grecian legends. The cabbage is one of the most extensively and universally consumed vegetables in this our own day, and, if well managed, is a crop that, beside its value for the home economy, will yield the skillful grower fine, often large, returns as a market crop; this concerns us more than Grecian myths about its genesis.

#### THE BEST SOIL FOR CABBAGES,

Especially the late varieties, is a cool, clayey loam that will retain moisture to some extent; and, where choice can be made, a cool position—a northern slope, for instance—is to be preferred. For early cabbages a somewhat lighter and warmer soil is preferable. Although such soils as mentioned are the most favorable for cabbage growing, considerable modifications of soil will answer very well if properly managed. But it would be a mistake to attempt to grow cabbages on a large scale in decidedly light soils, especially if these rest upon a sandy or gravelly subsoil. If, on the other hand, the subsoil be of a clayey character, good crops may often be grown, even on rather light soil, with judicious manuring and cultivation. On a small scale, for home con-



sumption, cabbages may be grown, even if not to the highest perfection, in most kinds of soil, especially if green manured and supplied with superphosphate of lime, guano, ashes, etc., according to the character of the soil. If this be loose and light, a partial remedy may be found in a compacting and keeping moist of the soil around the plants. Mulching with coarse manure, sea weed or the like will also have a good effect on unretentive soils. The more removed the character of the soil is from the cabbage soil *par excellence*, as described above, the more important it is that only the surest heading varieties of cabbage be grown.

#### THE CABBAGE PLANT IS A GREEDY FEEDER,

And there has hardly ever been a case in which a crop has been spoiled by too heavy manuring. The early crops, especially, require very great quantities of manure in order that they may be hurried through to perfection and maturity in the shortest possible time, so as to give room for second crops of such kinds as the locality and market render most lucrative or private wants may call for. Seventy or eighty large two-horse loads of good rich stable manure to the acre is none too much for early cabbages, if no artificial manure be applied. The late varieties, when they follow after richly-manured first crops, do not require such heavy special manuring, as they have a longer time in which to grow and search

for food in a wider range of ground. If the soil has been left in good, rich condition by the preceding crop, forty or fifty two-horse loads of good stable manure will secure a fine, large crop of late cabbages, if the other conditions be fairly favorable. Any kind of readily soluble manure may be turned to good advantage by cabbages. On the lighter soils, not naturally well adapted for growing cabbage, cow and pig dung, owing to their more consistent character and retentiveness of moisture, may be used to great advantage. The various artificial manures, especially superphosphate of lime, bone flour and guano, and poudrette (or dry prepared human excrements), liberally applied, will wonderfully increase the quantity and quality of the cabbage crop.

I have this year growing a lot of cabbages, the grandest any one could wish to look at, on a piece of ground that has received no manure at all, natural or artificial, from my hands; but the secret is this, that the ground in question for a couple of years had been a roaming place for my poultry. The soil was previously a rather impoverished, dead, clayey field, having received no manure for years. The luxuriant growth of the cabbages and cauliflowers this first year of using the ground for gardening purposes is due to the random droppings of the fowls during the preceding two or three years—the birds not having even been exclusively confined to the ground in question—and to a thorough, deep digging

of the soil, loosening the stiff subsoil, and a frequent stirring of the surface. The great value of poultry dung is thus demonstrated, and this is an item not to be left out in the calculation when the question is one of profitable poultry keeping and the growing of high-class garden products.

Of course, the broadcast, liberal manuring system is to be recommended when the object is not only to grow a single fine crop, but to increase the fertility of soil for following crops. As for some of the artificial manures, however, especially such as those in which the most valuable ingredients are either rather volatile or easily soluble, the greatest advantage of their use will be had by applying them at the planting places, mixing them well with the soil to the extent to which the roots of the plants will be likely to reach. By this mode of application a certain quantity of manure will go much further than if sown broadcast; nothing will be wasted, and perhaps the greatest advantage of the dropping system is the thorough disintegration of the soil incident to the mixing with it of the manure, thus making a bed in which the plants can most readily throw out a network of fibrous, active roots, that will find rich nourishment in their immediate vicinity, wherever they stray. Such extra preparation of the soil and thorough intermixing of finely-divided fertilizing substances will pay well for the extra work and care, and it requires but little practice and adroitness to accomplish this work

very quickly by simple means. If you wish to grow extra fine products and reap the profits thereof, try it. This may be a hint for some one, also, who might wish to grow some favorite plant for which his soil is not naturally favorable. By making a compost heap containing the elements required by such a plant, and applying the mixture of prepared soil and fertilizers as stated, no one need despair of growing, to some extent, any kind of plant within the range of the climate, be his soil as it may. If late cabbages be planted after the plowing under of some heavy green crop at the proper stage of development (when the plants begin to flower), a luxuriant clover-sod, for instance, or winter rye, or a spring-sown mixture of oats, peas, vetches or the like, but a moderate quantity of additional manuring is needed for growing a fine crop of cabbages; but it must always be borne in mind that *the richer the ground is manured, the larger and better the crop of cabbages*, and the better the ground is left for coming crops.

It will in many cases be found advantageous, when the work can be accomplished, to water thoroughly with fluid manure, dissolved excremental matter of any kind, well diluted, so as not to burn the plants, or well-rotted, easily dissolved substances. Such watering, if the solution be very strong, had better be done during, or immediately before or after, a rain. In cases of drouth, the effect of such help will, of course, be

most striking, but care must then, as already stated, be exercised that the solution be well diluted—as fluid as water, and of color like very strong tea.

*The soil for cabbages must be deeply cultivated and the subsoil be turned or broken if very hard or clayey. A frequent stirring of the surface of the ground will at the same time keep the weeds down and admit air and moisture, so essential for the solution and assimilation by the plants of the nourishing elements in the soil.*

#### EARLY CABBAGES.

When a favorable soil in a high state of fertility is combined with a good market, not too distant, early cabbages will be found to be one of the most important farm-garden crops. The soil and manure question have already been treated of above. The vital point in growing early cabbages for marketing is to force the crop to early marketable condition, so as, on the one hand, to reap the advantage of being among the first in the market and securing the higher prices that are always obtained for extra early garden products of first-class quality, and, on the other hand, to have the ground cleared as early as possible for second crops. It will in many cases be of advantage to keep up a succession either by repeated plantings of the same variety, or by growing a variety of sorts with different degrees of earliness in maturing; the latter method is generally preferable. The inexperienced grower will do well by trying both ways, in

order to ascertain which, for his soil, market and circumstances, is the best. Practical hints from the experience of others are valuable, but to some extent every one must think and try for himself, and modify general rules by his private circumstances. This is especially the case with regard to the choice of varieties. While some varieties may be so well tested in the most different soils and localities, and under the most varying conditions, as to be fully assured of their different qualities, there may be others which nothing but personal and repeated trials under varying conditions can decide the value. The wide-awake grower will ever have his attention directed to the discovery for himself of varieties, *new* or *old*, which are most suitable and remunerative under his individual circumstances.

*There are two ways of starting early cabbage plants:* Sowing in the fall, by the middle of September, in northern localities, in well-prepared soil, and wintering over in cold frames, or, if for some reason this should not be convenient, the seed may be sown by the middle of February or early in March, in hotbeds of moderate temperature (the thermometer showing 50–60 degrees when placed in the centre of the bed, which should have about three inches of earth over the manure), and transplanted into boxes when the second leaf is out. A second transplanting into cold frames, to harden off the plants before planting out, is recommended, as it makes the plants more robust

and hardy. If it is desired to avoid this second transplanting, the plants, at the pricking out in boxes, must be given abundant space, so as not to crowd and draw up spindling, and the boxes must be placed in cold frames for hardening off, for some time before the plants are to be set out.\* When carefully managed, such hot-bed grown and hardened plants will be as good every way as those sown in the fall and wintered over in cold frames, and they may be ready to set out as early, and then the care and labor are concentrated within a shorter time.

Any forcing of the plants must be avoided by keeping the temperature down within the proper boundaries—not higher than above stated. By such regulated, moderate growth, the plants will be in proper condition for planting out about six or seven weeks after the sowing of the seed. It is advisable to moisten the ground before the plants are pulled or, better, lifted, for transplanting, in order to make the earth adhere to the roots.

The plants grown in either of the above two ways, if stocky and well hardened, as they should be, may, or rather *should*, be planted out as soon as the ground can be worked. If the plants be

---

\* This operation as here given is too elaborate for practical use in this country. The seed should either be sown thinly, which can be done by sowing drills to be thinned out in the row if it should come up too thickly, and hardened by taking the sash off when large enough, or they should be transplanted at once into the cold frames without the use of the boxes.—Ed.

set deep and firm, they will not be injured even by rather severe weather after planting. Eighteen inches apart either way will be sufficient space for most varieties of early cabbage, but for convenience of cultivating with horse power, thirty inches between the rows may be advisable and sixteen or eighteen inches between the plants in the rows will afford room for about 10,000 or 11,000 plants to the acre.

The soil should be put in the best possible state of preparation immediately before planting. If the roots of the plants be "puddled" in a mixture of cow dung, clay and water, of a consistency of thick paint, the plants will be much more certain to grow, and no watering will be needed even if the weather be dry. A reserve of plants should be kept to fill out empty spaces if some of the plants first set out should fail to grow.

To bring the highest price the crop should be marketed as early as possible, the heads be solid and well shaped, and the more uniform in size the better. Early cabbages are generally cut off with a few of the inner leaves adhering to the heads, which improves their appearance. If they are to be taken in wagons to a near market, the heads are to be cut off early in the morning while the dew is on. For a more distant market, when they are to be sent in crates or ventilated barrels, they had better be cut late in the afternoon, before dew-fall, as moisture will soon spoil them, and the barrels should be kept protected against the sun.



Pack very compactly and snugly, using only neat, clean packing material—a good appearance is of the greatest importance, if you wish to secure an extra good price.\* Label or mark carefully, and if you employ a commission merchant, advise him fully by a preceding mail of what you send and by what train or boat it is shipped; a duplicate being kept to guard against accidental loss, and for reference when settlements are made.

#### LATE CABBAGES

Require the same conditions of soil, etc., as the early varieties. Having more time for their development, however, late cabbages do not require such heavy manuring as the early crop. If grown as a second crop after early potatoes, lettuce, peas, beets, radishes, spinach, etc., the heavy manuring that these crops will have received to bring them quickly forward will generally suffice also for the late cabbage crop. But the late as well as the early varieties of cabbage will pay well for extra heavy manuring, which at the same time will leave the ground in most excellent condition for following crops. A good dressing of unleached wood ashes has a striking effect on cabbages, both early and late, and beside stimulating growth will destroy a great many

---

\* The directions for packing as here given are unnecessarily elaborate, the custom in this country being to pack the heads tightly in barrels, no packing being used, as the spaces between the heads promote a free circulation of air.—Ed.

grubs. Of the advantage of green manuring and the application of various artificial manures mention has already been made in this essay.

*Seed for late cabbage should be sown in the first part of May*—several sowings may be advisable—in a fresh turned, well prepared, light and moderately rich soil, in drills an inch and a half deep and eight or ten inches apart. After covering the seed with the rake, press or roll the ground so as to make the soil pack well around the seeds. If the soil be rather dry, it may be advisable to give it a soaking some time before it is to be prepared for the seed. The sowing of some air-slaked lime upon the seed beds when the sprouts begin to push through, and again when the plants are fairly over the ground, will keep off the cabbage-flea, which otherwise will often destroy whole beds of plants. If the plants be pricked out before the final transplanting, this will encourage the development of a network of the fibrous roots so essential for a thrifty growth of the plants at the usually dry season when the transplanting has to be done, viz., in the latter part of June for the medium late sorts, and in the course of July for the winter cabbages proper.

The ground for late cabbages should be kept ready to take advantage of a possible rain for the transplanting of the young plants. As rain, however, is not to be depended upon at this time of the year, the next best thing is to “puddle” the roots, as stated for early cabbages, and plant

toward evening in fresh turned, thoroughly prepared soil, setting the plants deep and pressing the soil firmly round the roots.

The distance between the plants ought to be 30x30 inches, or the rows for more easy cultivation by horse power may be three feet apart and the distance between the plants in the rows two feet.

Keep the soil between the rows loose and free from weeds by use of the horse hoe or the corn plow. Immediately around the plants the hand hoe should occasionally be used, to keep the ground loose and porous. A handful or more of superphosphate of lime hoed in around each plant, when about one-third grown or a little earlier, will have a strikingly beneficial effect on the thriftiness of the plants.

The keeping of the plants in healthy thrift by heavy manuring and good tillage is the best remedy against cabbage lice, which during long dry spells, in many seasons, cause great damage to the cabbage crop. Some salt strewn on the cabbage has also a good effect for keeping off destructive vermin, and so have ashes thrown upon the cabbages. A large grain of salt dropped in the centre of the leaves, when the plants are of proper size for beginning to head, is said to induce a disposition for heading in plants that seem indisposed to form heads. I have not ascertained whether there is any truth in this saying; it might be worth trying.

The late cabbage crop is, upon the whole, very easily managed, and it is not only desirable to have a good supply of sure-heading, good-keeping varieties for one's own family use during the winter and early spring, but in many localities and seasons it will prove a very good paying crop to grow on a large scale for market. It affords me particular pleasure, in this connection, to call attention to the superior value of the "Danish Ball-Head," and a quite new variety, the "Matador," which in my trial grounds, embracing upward of a score of the most popular American and European varieties, distinguish themselves in a striking degree by their wonderfully solid character, every plant having headed, and the heads being so firm that they do not yield in the least to a very hard pressure; both are literally "as hard as a stone" as it is possible for a cabbage-head to be, and no other cabbage at present known will, I think, be able to compete with them for keeping quality, none are better fitted for shipping long distances, and none have a milder, sweeter or richer taste. The "Matador" combines with these excellent qualities a very large size. The weight of the heads in proportion to their dimensions is astonishing. A representative plant will be sent to Messrs. Burpee & Co., who may then judge for themselves. If shipping cabbages South from the Northern States in America will pay at all, then it will certainly be a lucrative enterprise to grow varieties like the two just men-

tioned for the purpose. At any rate, every one who grows or uses cabbages will no doubt be much pleased with a trial, large or small, of both varieties named.\*

Fearing that this essay may take up too much space, I shall withhold my observations about the other varieties with which I have made experiment.

#### THE CAULIFLOWER.

Of the very large cabbage genus, there is nothing that will compare in delicacy with the cauliflower. But few vegetables are so extensively used and so universally relished by all, from the prince to the laboring man who lives from hand to mouth and knows but few luxuries. Besides being savory when prepared in the different ways taught by the cook's art, it is richer in nourishing elements than most other vegetables. A garden without its patch with a succession of cauliflowers is very incomplete indeed. Many people think it so difficult to grow cauliflowers successfully that they have never made the attempt. Others have never tasted this delicious, healthful and nourish-

---

\*We have grown the *Danish Ball-Head* in our trial grounds the past season, and find it a reliable heading variety, with hard, round heads, which, however, were with us smaller in size than the American Standard for late cabbages. We have just received (Nov. 23d, 1887) the plant of *Matador* from Mr. Pedersen, and it is certainly a very handsome head of cabbage. So many European varieties, however, on extensive trial prove inferior to our American Strains, that we cannot give an opinion as to its value until we have thoroughly tested it under varying conditions.—Ed.

ing vegetable, and know not of what enjoyment they are depriving themselves by omitting it in their bill of fare, at least occasionally, for a change. To such I would say, just study the following simple instructions about the growing, and the directions later on for cooking the cauliflower, and be persuaded to try them. Many a market gardener finds the cauliflower, skillfully managed, one of the most valuable of his crops. It is one of those delicious vegetables of which we never tire, that will fit into almost any bill of fare, prepared in its different ways, and for which, therefore, the demand is always extraordinarily great, frequently far outbalancing the supply and forcing the price up to a very pleasant figure for the wide-awake and skillful grower.

*A strong, fertile, well-worked soil with a moist, retentive subsoil, and a position freely exposed to air and sun,* are the conditions under which the cauliflower will luxuriate, and in the higher degree these conditions are at hand or can be arranged by artificial means, the more certain will be the success with cauliflowers. The consumption of water by this vegetable, when in thrifty growth, is very great. Hence the necessity of regular, thorough watering, if there be not sufficient moisture in the subsoil accessible to the roots, when the surface soil gets too dry. As a matter of course, low land, especially if it can be irrigated, and the soil be good for the purpose, in a high state of fertility, and not too light, will be most

suitable for growing cauliflowers to perfection. Conveniences for artificial watering are, it will be understood, of great advantage, especially in years of drouth. The success with cauliflowers depends, however, greatly upon the right choice of varieties. This year, for instance, we have in this country suffered from drouth to an extent not known of for the last score of years, and yet I have seen a surprisingly grand field of cauliflowers, of an improved strain of the early dwarf Erfurt variety, grown in a stiff, clayey soil, very dry in the surface, not in the best state of cultivation, and without any artificial watering whatever. The roots of the plants were "puddled" when planted out; that was all. I do not believe that seven per cent., perhaps not five, of the said field of thirty or forty thousand plants failed to make fine, large, solid, beautifully white and typical heads. Other varieties have either utterly failed or made stunted, imperfectly developed heads.

As already stated, the *soil for cauliflowers* should be very rich, but it is not advisable to use fresh stable manure, as this promotes attacks of larvæ on the roots. Well-rotted manure will answer very well, but the best results are generally obtained by a liberal application of water-closet contents or other fluid manure immediately before the digging of the ground. A handful or two of lime flour stirred well into the soil at each planting place is greatly to be recommended. It prevents, or tends to prevent, attacks of grubs or larvæ on the

roots, and in soils not rich in lime promotes the thriftiness of the plants. Superphosphate of lime and guano or poultry dung, soot and ashes are all most excellent fertilizing substances. Watering with fluid manure and lye after the plants are well started will have a very beneficial effect; but such fluid manuring should either be performed after a rain or the ground should previously be well watered with water from a pond, or such as otherwise has been exposed to the sun for some time, so as to be slightly warmed.

The preparation of the soil and the treatment of the crop, upon the whole, are much the same as for early cabbages, of which we have already treated. As the roots, however, run very near the surface, the cultivation after transplanting must be confined to a superficial breaking of the soil, if it gets crusty, and to the keeping clean of weeds. Some good, loose compost soil placed immediately around each plant, when one-third or half grown, will be of great benefit to the plants, especially if the soil be very clayey and disposed to bake. If artificial watering be resorted to, such surface covering will help to retain a congenial moisture about the roots, and do the same service to the cauliflower that hoeing does to cabbages and other plants.

Intense heat and drouth being a great obstacle to the growth and normal fine development of the cauliflower, the best success is attained when the crop is advanced ahead of the most dangerous



hot weather ; or, again, put in late, when the intense heat is past. At the latter period, unless it be very late in the season, the soil will be liable to be rather dry, and it will then especially be necessary to be prepared for artificial watering, at least until the plants have got a good start. With a proper understanding of the wants of this delicious and valuable vegetable, it will in most cases be possible at least to grow a small patch of cauliflowers for one's own family use, and perhaps a few for special friends, if we should not desire to make a business with what can be spared from our own table.

If a full success, few if any vegetables grown for the market on a large scale will yield as high a net profit as the cauliflower, but it would not be safe to expect a complete success unless the requisite conditions are at command. To make experiments on a small scale, trying to make the best of one's private circumstances, is quite a different thing.

*For the earliest forcing of cauliflowers* the seed is sown in September, not too thickly, in a well-prepared, not too heavy nor too rich soil, in a sheltered situation. Sowing in drills about two inches apart is recommended. It may be a good plan to sow in boxes, as these can be easily removed to a shady or cooler place and kept dry or wet as need may be, the object being to keep the plant healthy, stocky and slowly growing. An admixture of coarse sand to the soil will induce the formation

of fibrous roots and help to retard the growth of the plants. When the young plants have put forth their second leaf they are to be pricked out for wintering over in cold frames, either direct or in pots or boxes, in a similar sand-mixed soil as recommended for starting the plants, each plant being allowed three inches square of space. The plants are to be kept *perfectly dry* with free access of *light* and *air*, and protected against frost. Whenever the weather will allow, the sashes must be partly or wholly removed in the daytime.

*Large fine cauliflower heads may be had early in May* by proceeding as follows: About the fifteenth or in the latter part of November, prepare a hot-bed of half each of fresh cow and horse dung, thrown into a heap for six to eight days, and in frosty weather protected with some straw or other suitable and convenient material. Then commence spreading the dung in layers, treading it firmly, and proceed until the bed has a depth of two feet or two and a half. Put on the frame and sash; leave about a week, airing occasionally. Then put on ten inches of good, rich soil. In a bed, four feet wide and four feet six inches long, plant eight plants in quincunx fashion, in three rows, respectively three, two and three in each row, thus:—

```

      *           *           ° *
          *           *
      *           *           *

```

Give as much air as the weather will permit.

Toward spring, the soil must be kept moist. Instead of hoeing the plants, it is advisable to add earth in the box until it reaches the lowest leaf stalk. In order to give more room to the plants, another frame, twelve to fourteen inches wider and two feet ten inches high, is put on the bed instead of the original one, in the beginning of March. The nearer spring advances the more the plants must be exposed to the open air as much as possible, while care must be exercised to protect with shutters and straw mats, nights, and in severe weather in the daytime. A secondary use may be made of the spaces between the cauliflower plants by sowing lettuce, radishes, cress, or any other desirable and suitable vegetable. While a limited quantity of cauliflowers may be grown in this way with satisfaction, and probably good profit, as extraordinarily early and fine heads will command fancy prices in almost any market, the bulk of plants for a very early forced crop are most conveniently kept in the cold frames until early in February, when they are transplanted to a hotbed made of fresh horse dung mixed with leaves, to insure a steady, enduring heat. The covering of earth on the manure must be at least ten inches deep. Two parts of ordinary good field soil, one part of leaf mould, one part of sand and one part of rich, old manure, will be a good mixture for this purpose. The plants are set deeply, a depression in the soil being left round each plant, which hollow is later on filled up by adding earth to

take the place of a hoeing. The spaces between the cauliflower plants will be available for secondary crops. When these are removed, a layer of earth is added over the entire surface of the bed.

All the time during the forcing the temperature is kept at fifty-five degrees, Fahr., and the air freely admitted, whereby the dangerous moisture is removed. Arrangement for ventilation when the sashes or shutters are on, in the nights and during severe weather, must be made. After transplanting to the hotbed, little or no water is given until the plants have made a good start; when they must be freely watered, and as soon as the heads begin to form, fluid manure, dissolved poultry dung, for instance, is to be applied, followed by an abundant sprinkling with water. The frames are lifted as the growth of the plants may require, and the spaces under the frames thereby arising are filled up with earth or turf. It is convenient to have additional frames, which may be of lighter material, to put on the top of the original frames, when these cannot be lifted any more, and the leaves of the plants touch the glass. If no such extra frames are at hand, the sashes must be lifted by means of some bricks or the like. During mild, rainy, or cloudy weather and on warm nights, the sashes are removed, while they are kept on in sunshine and windy weather, to prevent drying out.

All along, as the heads begin to form, a leaf or two should be broken over to cover them, to keep

them from exposure to the light, which would make them dark and loose. The heads must be cut in the morning, while the air is cool and fresh and the night dew covers the plant. They will then keep much longer in good, fresh condition than when cut later in the day.

*For cauliflowers in the open ground*, the first sowing is made in hotbed in the months of February and March, according to the locality, and after the plants have been pricked out and hardened by exposure, they are transplanted in April, or as early as safe, to a sheltered place facing the south, or any other warm situation. Another sowing may be made, also in hotbed, a fortnight later, to keep up a supply. Or if two varieties—an early and a medium early—be sown at the same time, monthly periods for repeated sowings will furnish a pretty steady supply, the plants coming to maturity and heading gradually. As soon as the soil can be worked in spring, seed may be sown in sunny, sheltered situations. Good seed, well matured and properly treated during the curing and drying process, germinates very readily at a pretty low temperature, and gives robust and powerful plants that can be easily managed, and with a very slight protection, such as every reflecting grower will readily find means to afford, may be carried through the most dangerous period of early spring with comparative ease.

*For the family garden*, plants may be started

quite early in boxes or flower pots in the house or conservatory. A bay window or a closed veranda, well exposed to the sun, may be made to do great service in starting early plants. As for the pricking out and treatment, the instructions given under the head of forcing, with regard to distance, temperature, airing, etc., must be kept in mind. The object must be to keep the plants *slowly* growing, stocky and strong, until it is safe to transplant into the open ground. This is attained by starting the plants in a light, sandy soil, watering sparingly, airing freely, keeping the temperature moderate, and leaving sufficient space, so that each plant may be well exposed to the light. If the light only comes from one side, the plants will be liable to "draw," which must be avoided by occasionally turning the boxes.

In addition to what has already been said about manuring, I wish to call attention to experiments made with phosphoric acid manure, which indicate a decidedly good effect of such manure upon the development of the cauliflower. The areas subject to the experiment were each of the size of one "ARE," about one thousand square feet, of which the one patch was manured with 75 kilograms of the phosphoric acid manure, and the other with 3000 kilograms of good compost earth.\* The plants subject to the former treatment grew

---

\* The ARE is about one forty-fifth of an acre. Seventy-five kilograms is equal to 165 pounds avoirdupois. The 3000 kilograms of compost would be about three tons or two-horse wagon loads.—ED.

luxuriantly and formed fine heads, ten to twelve inches in diameter, and but four or five per cent. of the plants failed to produce heads, while on the patch that received the compost manure, twenty-five or thirty per cent. failed, and the rest of the plants developed slowly, comparatively, and only yielded heads of six to eight inches diameter. It is, probably, in a great measure owing to this strong effect of phosphoric acid that poultry and pigeon dung, which contain considerable quantities of this element, are so very beneficial for the development of the cauliflower.

*Cauliflowers may be had until New Year's* by sowing seed of the dwarf Erfurt variety in the latter part of July or early in August. The plants will then begin to form heads in October, and when transplanted, with a lump of soil adhering, into a light place in a vegetable cellar, the heads will develop in the course of a month or two. The heads will not be large, but solid and of good quality.

*A new variety of large, late cauliflower*, originated in these northern regions, and which I propose to name *Baltic Giant*, is very hardy, of robust growth, and produces very large and solid, dazzling white flower heads. A friend of mine writes from the Baltic island of Bornholm that in mild seasons he has left this splendid late variety in the open ground as late as Christmas, only protected by a leaf or two bent over the heads to keep them from exposure to the light, in

order to preserve the beautiful white color and the tenderness of the buds. Left on the root in the field, this variety, my Bornholm friend writes, will stand two or three degrees of frost without injury.\*

#### CAULIFLOWERS FOR WINTER USE.

*A practical and convenient method of preserving cauliflowers until late in the winter* is to make beds of moist sand, four inches deep, in a cool room, protected against frost, and the floor of which had better be of asphalt, cement or the like. Toward the close of the fall the plants are cut off with a piece of stalk about three or four inches in length, which are stuck into the sand bed, after all the leaves have been removed, with the exception of the inner course, which must be pretty closely cut down, and the heads covered with flower pots. A space of twelve feet square will in this manner contain 250 plants or upward, as the size may be, when placed close together.

*None but the best matured, cured and kept seeds of the most select stock will produce plants of the highest perfection.* This is a self-evident truth, that holds more or less throughout the whole range of plants subject to cultivation in garden or field; but in no other case is it of greater importance to *act upon*

---

\* We have ordered some of this seed from Mr. Pedersen, and shall have it thoroughly tested, both in our own trial grounds and by growers in the famous cauliflower district of Eastern Long Island. The result we hope to announce in BURPEE'S FARM ANNUAL FOR 1889.—ED.



*this truth* than in the choice of cauliflower seed. Few garden crops, if any, will yield so great returns as the cauliflower when the maximum of success is attained; but even the most suitable soil, the most skillful cultivation and the most favorable weather, cannot accomplish this if a careful choice of seeds be neglected. As you sow you will reap. The cauliflower, especially the most costly and valuable varieties of the early dwarf Erfurt type, is of all garden plants one of the most liable to deviate and deteriorate, unless never-ceasing, scrupulous care be exercised in selecting plants for stock seed. Even the originally best stock will soon "run out" if the requisite skill and care in the growing of the seed be not continually observed.

Considering how many plants may be grown from an ounce of good cauliflower seed (about three thousand), and that the average quality of these plants will be in a fixed relation to their pedigree—to their original type being kept strictly up and even improved through generations, under most favorable circumstances, or, on the other hand, by neglect allowed to deteriorate—it will be evident, on a moment's thought, that the best obtainable seed, not only of strong vitality, but of the purest and best stock, is absolutely the cheapest. Just calculate what even but one or two cents more or less per head amounts to for the plants grown from an ounce, or five or ten ounces, of seed! But the difference between the very best

and moderately good seed may in some seasons amount to complete success in the one case, and total failure and chagrin in the other.

#### ENEMIES OF THE CAULIFLOWER.

Young seedlings of the cauliflower are, like other plants of the family to which it belongs, subject to attacks by ground fleas, the best remedy against which is moisture. Dusting with powdered tobacco has a good effect. The exhalation of ammoniacal fumes from the decaying dung protects the plants against this enemy as long as they remain in the hotbed. After planting out, the roots and root stalk are often harassed by various larvæ, which either hollow out the stalk and main roots and cause the plant to rot or wilt, or occasion swellings at the root head, which prevent the free circulation of the sap. A liberal admixture of caustic lime dust to the soil in a circle round the plants is a good preventive against these latter pests. Superphosphate of lime, so directly beneficial to a healthy and robust growth of the cauliflower and cabbages, will no doubt answer the purpose. Sifted coal ashes and ashes, upon the whole, have a protective influence, both when intermixed with the soil or applied to the leaves. Some radishes sown between the plants seem to attract various larvæ and insects, and thus serve as an easy preventive against several pests. Plants attacked in any way ought at once to be removed, to prevent their becoming a nursery for spreading the pests.

In the summer and fall the cabbage and the beet butterfly will deposit their eggs on the leaves of the plants, where they develop into the so-called cabbage worms. These eggs are generally laid in lumps and easily discovered and crushed. In an old German magazine I have just found the following remedy, which may be worth trying: In four or five quarts of warm water is dissolved a handful of rock salt, and a few finely crushed or pounded garlies are added. With this mixture the plants visited by the butterflies are sprinkled with a brush, a wisp of grass, or grain straws, or by any other means. The sprinkling must be performed after the dew has evaporated. Cabbages may experimentally be treated in the same way.\*

*For immediate sale in a neighboring town* the cauliflower heads should be cut early in the morning while the dew is on, and be kept protected against the sun until they are to be exposed for sale.

#### PACKING FOR DISTANT MARKETS.

The heads are to be cut off in a dry state, but not wilted, with only an inch of stalk. The leaves are to be removed, with the exception of a couple of the inner courses, which should be cut down to such a length as to meet when they are bent gently together over the head. Pack in open, clean and

---

\* Alum water used in this manner has proved efficacious the past season, under our own observation.—Ed.

neat-looking crates or boxes, in the bottom of which put a few leaves and on these the cauliflower heads, which should be of a uniform size for each crate. Pack closely and firmly in layers, taking care, however, not to bruise the tender buds. All the heads in a layer should turn in the same direction, being laid sidewise, and the next layer in the opposite direction, respectively, with top and stem. On the top of the heads fill in with leaves until the cover will press the whole contents so tight as to prevent the heads from moving during the transportation.

Label the crates neatly, stating the contents on each crate separately. Immediately in advance of a shipment send your commission house a detailed list of what you are about to send or already have delivered at the express office, steamboat, etc., stating, also, in your letter of advice, by what train or steamer the goods will be sent. The observation of the above rules will greatly help to secure for the shipper the quickest sale and the highest price that the state of the market will allow.

# HOW TO GROW CAULIFLOWERS SUCCESSFULLY.

---

BY G. H. HOWARD,  
Of Suffolk County, Long Island.

---

## SELECTION OF LAND.

To grow cauliflower successfully it is necessary to have good loam, or sandy loam with the loam predominating. Take a piece of land that has been in pasture for two years or more. Plow as early as the first of May, and not less than eight inches in depth, turning over as level as possible. The idea of plowing early is to preserve the *moisture*, also to give plenty of time for working the land into good shape before setting the plants. After the plowing is done, take a wheel harrow and cut it up well, going crosswise first, then afterward making it as fine as possible with any good smoothing harrow.

## MAKING THE SEED-BED AND SOWING THE SEED.

Commence on one side, and at the end of the field, and sow two ounces of *Erfurt* or *Snowball*, and one and a half ounces *Algiers* for every acre that is to be put out. These are the only kinds used in the great cauliflower district of Eastern Long Island, where thousands of acres are raised every

year. This seed-bed should be nicely made. Rake in some fertilizer; be careful not to use it too heavily, for it may burn them if very strong. It is safest to do the sowing by hand. Take a tin box, about an inch and a half in diameter, and make two holes in the bottom, one for Erfurt and one for Algiers; plug the one you do not wish to use, then put in some seed, and put on the cover, and shake it along the rows; it works quickly and well, if the holes are of the right size.\* Sow the seed about three-quarters of an inch deep, and sow the Erfurt more thickly than the Algiers. Before the plants crack the ground there should be a good supply of tobacco dust at hand; the finest is the best and cheapest. This is the best preventive for that destructive little bug known among cauliflower growers as the "Jack." The tobacco dust should be applied very freely the first week or two. Put it on while the dew is on the plants and after a rain. It takes about six weeks for the plants to grow to the right size for transplanting.

#### FERTILIZERS, AND HOW TO APPLY THEM.

About three weeks before the time for transplanting, the fertilizers should all be applied,

---

\* This idea of making the sowing quickly and evenly by the use of a box with a perforated bottom is very good; but we would suggest the use of different boxes for the different sizes of seeds, to avoid the trouble that might ensue if the plugs worked out. They could be made without expense, from old Tomato or Baking Powder Cans.—ED.

sown broadcast and worked in. Experience has proved that it is detrimental to the plants to put on the fertilizer and set them out immediately afterward.\*

On land that is very rich, twelve hundred-weight of fertilizer to the acre will raise a good crop, but generally it needs from fourteen to sixteen hundred-weight of the best grades of special cauliflower fertilizer. Some soils do well where fish-scrap and muriate of potash are used, putting on about fifteen hundred-weight of fish-scrap, and four or five hundred-weight of muriate of potash, to the acre.

#### TRANSPLANTING.

A few days before the time for transplanting, (in this district, Eastern Long Island, 41° north latitude, time for setting out main crop is between the 20th of June and 1st of August), the ground should be harrowed, and then a planker should be put on and the surface smoothed off nicely, so that the marking can be properly done. Mark out crosswise first, three feet apart, then lengthwise, three feet apart for Erfurt and Snowball, and all small growing kinds, and four feet apart for Algiers, and all large varieties; it does not pay to put them closer. If it does not rain when the time comes for setting, and the ground is not moist enough, it

---

\*The reason of this is that the moisture of the soil starts the chemical properties of the fertilizer at once into action; applying it two to three weeks previous to planting allows it to become well composted in the soil.—ED.

is best to cart water and wet each place a little before setting the plant; don't do it afterwards, as it leaves the ground hard and baked around the plants. Never use salt water, for it will kill them all. Generally, there is no need of carting water, for when the ground is properly worked, it will be moist enough to set out the young plants even in the driest time. As a rule, it does not pay to set out in the fore part of the day, and not till after three o'clock in the afternoon of a very hot day.

#### CULTIVATION.

The cultivation should always be level. The cultivator should be run quite deep the first and second times through, both ways, afterwards quite shallow. Cultivate as long as possible without breaking off the leaves. After that it would be an injury to them to continue cultivation, as their roots run over the ground, a good deal like corn roots. Nothing further needs to be done till they begin to head.

#### TYING AND BLEACHING.

Cauliflowers, if left to grow without covering, are not, as a rule, worth anything, but if covered at the proper time, will generally come out white and nice. The whiter they are, the more money they will bring in market. Commence to tie them up when the heads are about the size of a coffee cup, taking two rows at a time, and tying them with their leaves lapping one over the other till sufficient to shade them nicely from the sun, tucking



the last leaf under; do not tie too tightly down upon the top of the head, as it will make them heat and become spotted. The tying should be done while the cauliflowers are dry, and during the warm part of the day, on account of the leaves being limber. This plan works well till cold weather comes, then use rye straw, gathering all the leaves that are fresh and green, up straight, and tying near the top.

#### CUTTING OF CAULIFLOWERS.

The cutting involves considerable care and judgment, and it must not be neglected, for money is often lost by not attending to the cutting at the right time. To examine them, part the leaves on one side (don't untie the top), and, if there are signs of starting or cracking, the head should be cut. The *Erfurt* varieties are harder and do not start or crack so soon. Care must be taken with them, not to leave them standing too long, for, if the weather is wet and warm, they are liable to get spotted, and that greatly spoils their sale, and sometimes makes them worthless. In cutting from the stump, leave about three layers of leaves fast to the head. A good, strong knife is needed for cutting and trimming, and it should have a blade about one foot in length.

#### TRIMMING,

Generally, the trimming can be done in the field where they grow. There should be a basket for

carrying out the trimmed heads, that will hold a bushel and a-half, and it should have raised handles. Sometimes it will pay to cart them into the barn before trimming (such is the case where the flowers are particularly fine), as they need drying off well before papering and packing. To trim them, take hold of the head near the butt with one hand, placing it upright against you, then, with a turning motion, cut clear around the head, leaving about an inch and a-half above the edge of the head. The butt should be cut off smooth, and there should be about two layers of leaves left round the head to protect it. Use for papering, soft, white wrapping paper. Sheets should be about twelve inches wide. Each is covered separately before packing. It pays to paper fine white heads.

#### PACKING.

In packing, use barrels. A flour barrel is the best, or barrels of that size. It does not pay to ship in larger ones unless they are to be sold at retail. The plan for packing generally followed is: commence laying the heads in, on their sides, and all facing in, filling in the centre with the small ones. Continue each layer this way until the barrel is full. Another plan is: commence putting in the heads upright, close together, then put on a layer of paper, then put in another layer of heads downward upon this paper, then again reverse until full. Pack as solid as possible. Have the barrels well filled, and cover with bag-

ging, putting it under the top hoop and press down tightly, by driving down the hoop.

#### CONCLUSION.

It quite often happens that when it has been backward and dry weather, there will be some plants left that are not half headed when winter begins to set in. In order to save them and get the most money out of them, cut them off at the top of the ground, and place them in a cool cellar, standing them upright upon the bottom. They will grow quite a good deal, and can be kept so long that they will become much higher in price, bringing sometimes as high as twelve or fifteen dollars a barrel.

# HOW TO GROW CABBAGES SUCCESSFULLY.

---

BY G. H. HOWARD.

---

## SELECTION AND PREPARATION OF LAND FOR EARLY CABBAGES.

The land for early cabbages should be a good retentive loam, as the nature of season for the heading of early cabbages is the opposite of that for late cabbages, that is, it is increasing in heat, while that for late is becoming cooler. They must have land that will hold moisture well. It is best to prepare the soil as far as possible in the fall. Plowing in the fall destroys everything green and leaves nothing for cut worms—which sometimes are so troublesome—to live upon. The land should be plowed and harrowed, and if it is not rich should receive about a half-ton of coarse-ground bone to the acre.

No time can be set for putting out the plants, as the seasons vary. It is best to keep the plants in the beds till there is no danger of snow storms. In the spring, when the time comes for putting in the plants, the land should again be plowed and harrowed and marked out with a horse marker, one that makes a good deep mark; then sow half a ton of guano in the drills to every acre;

then cover this with a cultivator with two covering teeth in front and with a coverer and wheel behind, leaving a ridge a little above the level. The rows should be two feet and a half apart, and the plants should be set eighteen inches in the row, which admits of about eleven thousand five hundred plants to the acre.

#### INSECTS.

In raising early cabbage there is more trouble with insects than with late cabbages, as their growth is made at the season of the year when all kinds of insects come forth. The maggot is very plenty in some soils, and destroys some plants by eating the bark from the stem below ground. The best remedy for them is to put a spoonful of muriate of potash in a quart of water, and apply a gill of the solution around the stem of each plant. There is another remedy which is just as effectual, but which takes more time to apply, and that is a small handful of wood ashes put down around each stem. These are sure remedies if applied at the proper time, that is, before they have destroyed the bark and roots of the plant. Cut worms are oftentimes very troublesome with some, but if the land has been thoroughly plowed in the fall, and all the green weeds and grass killed and no vegetable manure is applied, there will be little or no trouble with them. A strip of tin about four inches wide and ten inches long, bent together and shoved down around each plant, will prevent all cut

worms from eating the plants.\* There is also another insect that almost always attacks the plants after setting out, and that is the "Flea," generally called "Jack Bug," and which, if not driven away, will soon destroy them. The remedy for them is tobacco dust; it must be fine and strong, and quite freely used. Tobacco dust is a great *preventive* when used on growing plants in the bed or in the field, keeping the plants free from all bugs, lice and green worms.†

#### CULTIVATION.

Early cabbage needs cultivating at least once a week, while they are growing, keeping the ground loose until they begin to form heads.

#### CUTTING AND MARKETING.

Cabbage, to look fresh and attractive, must be cut in the morning before the leaves wilt. They should be cut with some loose leaves on them, as it gives them a much better appearance. They can be shipped in crates or barrels.

#### LATE CABBAGE.—SOIL AND PREPARATION.

Late cabbages are generally raised as a second crop, and on land that has already been made rich

---

\* We would suggest that these strips could be cheaply procured by gathering up old fruit cans, and heating them sufficiently to loosen the solder.—Ed.

† Where the tobacco dust is not easily obtainable, we would recommend the use of Land Plaster or Hammond's Slug Shot for this purpose.—Ed.

for the first crop, and therefore it does not matter so much about the soil, as it does for the early crop. Sandy loam is the best. Land that has been heavily manured for the spring crop, will need only about a half-ton of cabbage fertilizer to bring this crop on ; put it on broadcast and harrow in deep.

For raising plants, refer to instructions for cauliflower. It takes about four ounces of seed for an acre ; they will grow large enough to set in five weeks after sowing the seed.

#### PLANTING AND CULTIVATION OF LATE CABBAGE.

Nearly all varieties of late cabbage should be set out three feet by two, taking a little over seven thousand to set an acre. The largest growing kinds should be set three feet square, taking nearly five thousand to the acre. As the planting has to be done in midsummer, other ground should be prepared as soon as it can be put in order, so as to be ready when the rain comes. About the right date, considering all kinds, would be the twentieth of July for this section ( $41^{\circ}$  north latitude). Cultivate and hoe thoroughly twice, and that is generally sufficient.

#### MARKETING.

The large or late kinds of cabbage should always be solid, and they should be cut without any superfluous leaves, when sent to market. It often happens that late cabbage is so plenty that

they will not pay to market, and it is then best to hold them until later in the winter, when they frequently sell for ten or twelve dollars a hundred. To keep them, pull and turn them heads down, upon the level, making a double line straight across the lot, then cover with a plow, turning two or three furrows over them, then pull the dirt up still more with a hoe; the covering should be sharp enough to turn water, and thus they will keep all right till taken out for marketing.



# VARIETIES OF CABBAGE.

BY W. ATLEE BURPEE.

It is not our desire to confuse the reader with a lengthy list of all known varieties of cabbage. We will briefly describe only those varieties that are best adapted to the climates of the United States, as there are many European varieties that are comparatively worthless here.

We have arranged the varieties, as nearly as possible, in the order of maturity.

## EXTRA EARLY EXPRESS.

"Excels in earliness all the sorts we have grown; has the shape and appearance of our well-known *Etampes Cabbage*, but is smaller and eight or ten days earlier; has but a few outside leaves, and, therefore, may be planted very close and yield large crops; for forcing, can hardly be surpassed."



EXTRA EARLY EXPRESS CABBAGE.

Above is the description of THE EXPRESS CABBAGE as sent out in France last year by the introducers of *The Etampes Cabbage*, now so justly popular. We imported the seed for trial and gratuitous distribution among growers in various States. The reports received from the sample packets thus distributed have, with but few exceptions, been very favorable, and we are convinced that THE EXPRESS is at least a week earlier than any other early cabbage.

#### EARLIEST ETAMPES.



EXTRA EARLY ETAMPES CABBAGE.

Since first distributed, eight years ago, THE ETAMPES has steadily gained in popularity, until it is now acknowledged the earliest variety in cultivation, except the new *Express*. The heads

are oblong, rounded at the top, very solid and firm; while it seldom fails to head, under unfavorable circumstances, the heads are not apt to be so solid as the *Jersey Wakefield*. The heads are of medium size, and of very fine quality. This is identically the same cabbage catalogued by some seed dealers as "EARLIEST," with their names attached.

#### EARLY JERSEY WAKEFIELD.

Many experienced market gardeners consider this the very best "*First Early Cabbage*." It is cer-

tainly deserving of its great popularity, and is grown for market more extensively than any other early cabbage. Its heads up remarkably hard and solid; the heads are pyramidal in shape, generally pointed at the end, and, having few outside leaves, the plants can be set close together. The heads



EARLY JERSEY WAKEFIELD CABBAGE.

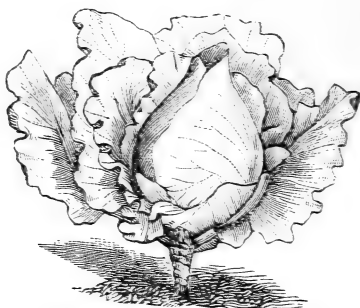
are of excellent quality, and of large size for so early a cabbage.

EARLY WINNINGSTADT.

A well-known and very popular early variety, in season very close to the Wakefield; heads large, decidedly conical, leaves bright, glossy green; heads solid and hard, even in summer. This is a very sure-heading variety, valuable not only for early use but also for winter cabbage.

## EARLY DWARF FLAT DUTCH.

An excellent second-early variety, producing fine large heads, after the early varieties have disappeared. Highly valued, both for its fine quality and ability to resist heat. The heads are very solid, broad and round, flattened on top; tender and fine grained.



EARLY WINNINGSTADT CABBAGE.

## EARLY SUMMER.

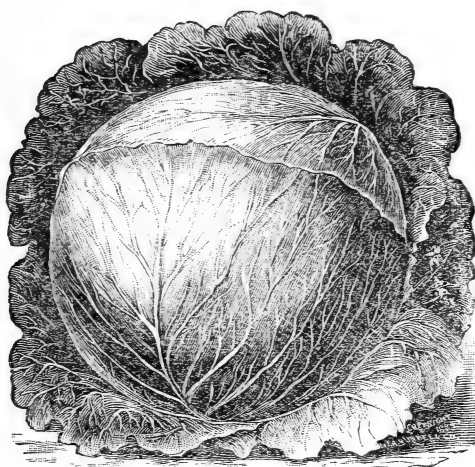
This variety is deservedly popular with market gardeners. As shown in the illustration, it forms large, solid, round, flattened, compact heads, of excellent quality. The heads average over double the size of the Jersey Wakefield, while it matures only ten or twelve days later. The leaves turn into the head so completely that about twelve thousand plants may be set to the acre, making a very profitable crop. This variety is also known by the name of *Newark Early Flat Dutch*.

## PEERLESS EARLY.

This cabbage is selected from a cross made by a Massachusetts market gardener, who claims it to



EARLY SUMMER CABBAGE.

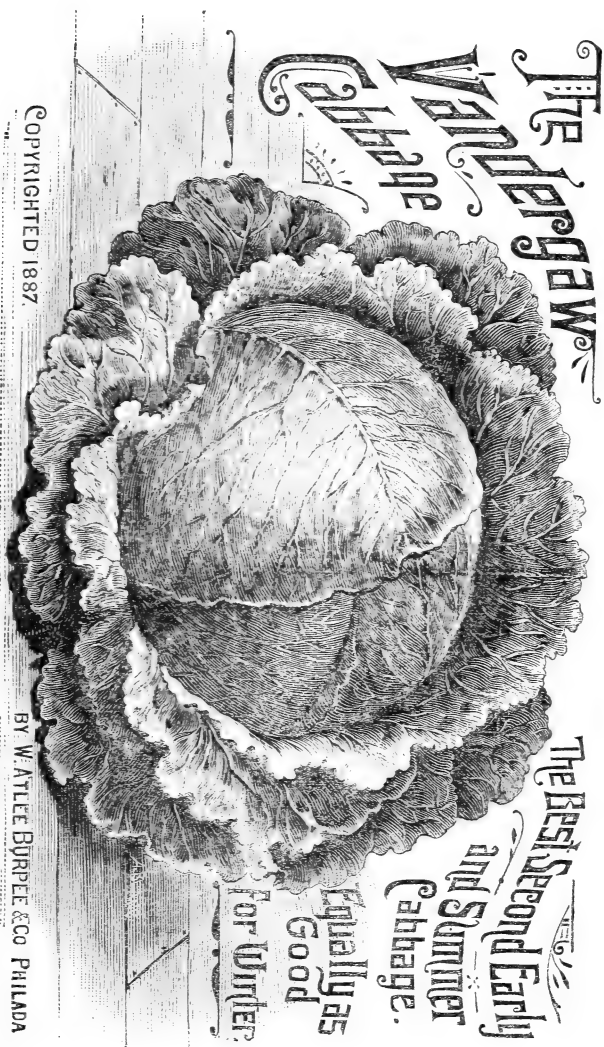


NEW PEERLESS EARLY CABBAGE.

be superior to Henderson's Early Summer, and says of it: "Nearly equaling Jersey Wakefield in earliness, and forming very much larger heads, (often weighing more than twelve pounds apiece). Very round and uniform in shape and general appearance, fine grained, small, short stump, with few loose leaves, thus allowing them to be set out nearer together, and increasing the number of plants per acre; it also has the very valuable quality of remaining, after fully matured, without cracking or bursting, much longer than any other variety."

#### THE VANDERGAW.

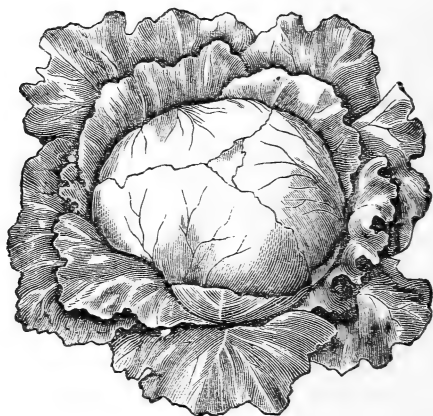
This new cabbage, introduced in 1888 for the first time, was procured two years since, at ten dollars per pound, from a famous Long Island Market gardener, whose name it bears. Mr. Vandergaw has been selecting this variety for many years, and has sold the seed annually to neighboring growers of cabbage for the New York market, as high as \$20 per pound, and never less than \$10 per pound. Last year we obtained a few pounds at the latter price, expressly to distribute for trial among cabbage growers throughout the country. From all parts comes *unanimous praise*, and we could fill many pages with strong testimonials. *The Vandergaw* forms large solid heads, much larger than *Early Summer*, and almost as early. The quality is very fine, and, like the famous Surehead cabbage, it is remarkable for its certainty to head. The heads are so large and



solid that it is equally as good to grow late, for winter use.

FOTTLER'S BRUNSWICK (SHORT STEM).

This is considered the earliest and the best of the large, hard-heading Drumheads. It heads shortly after the *Early Flat Dutch*, and is most



FOTTLER'S EARLY BRUNSWICK CABBAGE.

excellent for *second early* or summer, and is also admirably adapted for fall and winter. Heads often weigh from twenty to thirty pounds each; very hard and firm, ripen in eighty-five days, and quality very fine.

EARLY BLEICHFIELD GIANT.

It matures as early as the celebrated Fottler's Brunswick. It is a short-stemmed sort, with very large and solid dark-green heads, and is very



reliable for heading. Owing to the great solidity of the heads, they remain in use for a long period; they are very tender and of excellent flavor.

ALL SEASONS.

A new variety that is becoming quite popular. The heads are of large size, round, flattened at the top, and are ready to market nearly as early as Early Summer, while they are hard and solid, and keep well for winter cabbage.

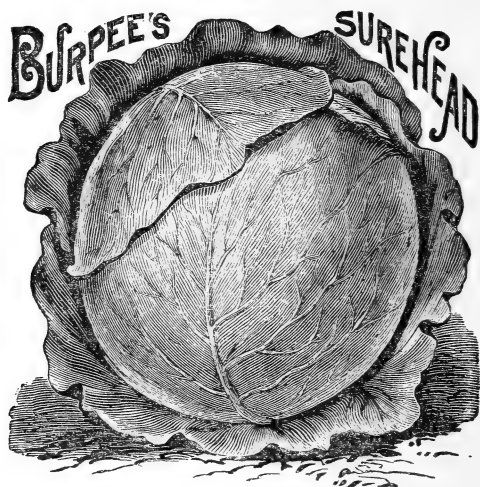


EARLY DEEP-HEAD CABBAGE.

EARLY DEEP-HEAD.

This new cabbage originated with a market gardener of Essex County, Mass., in which section

it has already become popular, and is highly esteemed. It is a very desirable second early variety. The heads grow to a large size, are hard, solid, and, as its name signifies, are deeper through than ordinary stocks of flat-headed second early cabbages. It is fully as early as Fottler's Brunswick, while the heads are as large round and considerably deeper. It is a valuable variety to follow the Early Summer; the heads are larger, being ten to twelve inches in diameter. It is very reliable in heading up firm and solid, the outer leaves turning in well.



BURPEE'S SUREHEAD.

This famous cabbage, *first named and introduced by us eleven years ago*, has steadily gained in popular favor, until to-day it is considered by many growers to be *the very best cabbage for main*

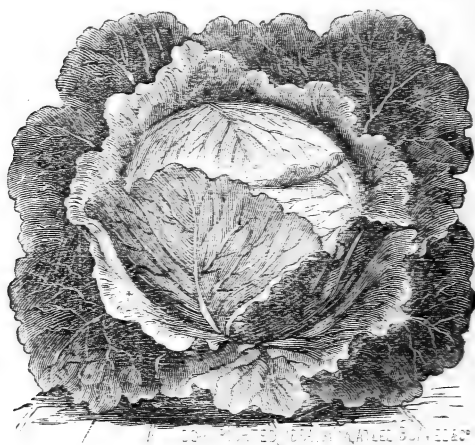
crops. Hardly any other variety can approach the Surehead in fine quality and uniform reliability in forming solid, firm heads, of good size, even in unfavorable seasons. Burpee's Surehead Cabbage is the result of hybridizing and many years' continued selection by a most experienced market gardener, who, until we obtained the stock, eleven years since, had never supplied any seedsman. It produces large, round, flattened heads, of the Flat Dutch type, and is remarkable for its certainty to head; it is all head, and always sure to head. The heads are remarkably uniform, very hard, firm, and fine in texture, and ordinarily weigh from ten to fifteen pounds each. It is very sweet flavored, has scarcely any loose leaves, keeps well, is good for shipping, and is just the variety and quality to suit market gardeners, farmers and all lovers of good cabbage.

#### DANISH BALL HEAD.

While in Denmark in the summer of 1886, we discovered a variety of cabbage called, from the shape of the heads, Ball Head, which the Danes prize so highly that they grow it almost exclusively for winter cabbage, and annually export large quantities. It has been selected and perfected for more than fifty years by the Danish gardeners. The heads are hard as they can be, round, of medium size, of extra choice quality, very fine grained, and remarkably good keepers.

## LARGE LATE FLAT DUTCH.

A low-growing variety ; heads large, bluish-green, round, solid, broad, and flat on top ; of very



LARGE LATE FLAT DUTCH CABBAGE.

fine quality. The old popular variety for winter cabbage.

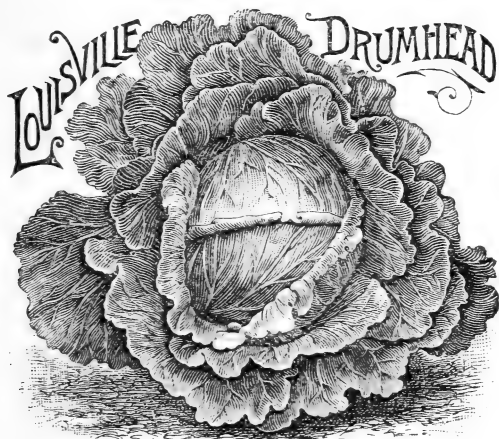
## LARGE LATE DRUMHEAD.

This is similar in most respects to the Late Flat Dutch, but the heads are more rounded on top ; it is also generally longer in stem. For this and other reasons, we recommend to market gardeners either Burpee's Short-stem Drumhead or Louisville Drumhead, as preferable.

## LOUISVILLE DRUMHEAD.

A very fine, short-stemmed strain of Large Late Drumhead Cabbage, highly esteemed by the market gardeners of the Southwest, where it is said to

stand hot weather better than most other sorts. The heads are of good size, round, flattened on

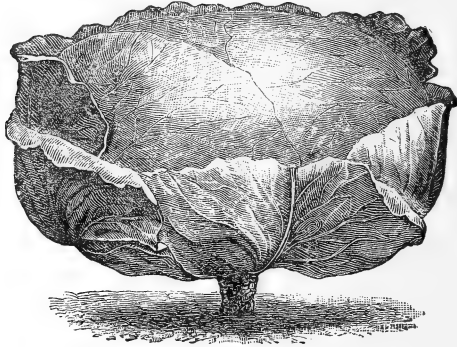


the top, but not so thick through as Burpee's Sure-head.

BURPEE'S SHORT-STEM DRUMHEAD.

The New Short-stem Drumhead has a very short stem and grows very compactly—the leaves all turning in to form the head, with very few loose leaves—thus allowing the plants to be set close together. The heads are very large, extra hard, solid, round, flattened on the top; they grow very uniform in size and shape, and present the handsome appearance well depicted in the above illustration. The heads frequently attain twenty or thirty pounds in weight, and are always of the finest quality. For reliability of heading this

variety is, from long-continued selection, also remarkable.



BURPEE'S SHORT-STEM DRUMHEAD CABBAGE.



FILDERKRAUT CABBAGE.

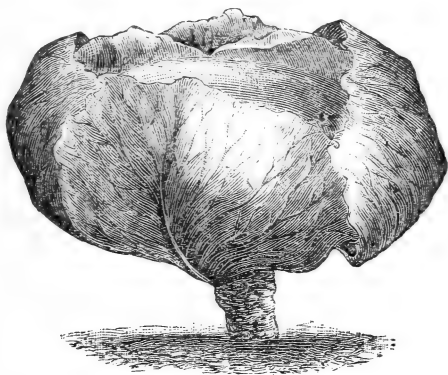
FILDERKRAUT.

A great favorite in Germany, and needs only to become known to be equally popular in America. The Germans use it largely in the manufacture of

“kraut.” The pointed, conical heads attain a large size; can be used medium early, but are specially valuable for winter use. The heads are very hard and solid; they feel nearly as hard as marble, and are of excellent quality, pointed or conical in shape, with a peculiar twist at the top. It is remarkable for its certainty to head; it is very hardy and thrives well everywhere.

GREEN GLAZED.

A glossy pea-green, late variety, quite popular in the Southern States, as it resists the attacks of bugs, etc.

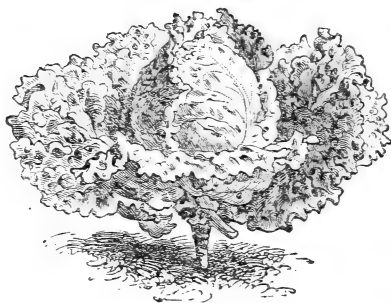


MARBLEHEAD MAMMOTH CABBAGE.

MARBLEHEAD MAMMOTH.

Of enormous size, single heads often weighing thirty to thirty-five pounds each, and sometimes reaching to fifty pounds. The flavor and quality, of course, are not so good as in smaller varieties; neither are the heads very uniform, therefore we cannot recommend it for general use.

## EARLY PARIS SAVOY.



EARLY PARIS SAVOY CABBAGE.

After careful inspection, in France and Germany, of all the newer strains of Savoy Cabbages, we pronounce this as probably the most valuable. It matures very early, the heads are firm, solid, beautifully crimped, and of finest quality.

## EARLY DWARF ULM SAVOY.

One of the earliest and sweetest of the Savoy. Small, solid, round heads, with small, thick, fleshy leaves, of fine, deep-green color.

## PERFECTION DRUMHEAD SAVOY.



PERFECTION DRUMHEAD SAVOY CABBAGE.

Heads large and very finely curled; short stalk and compact grower; an excellent keeper. Partakes of the size of the Drumhead, with the curled leaves and fine flavor of the Savoy. Far superior to the ordinary imported Drumhead Savoy.



Every one should know that the Savoy approaches nearer to the delicious richness of the cauliflower than any other cabbage.

EARLY BLOOD-RED ERFURT.

Heads hard, solid, and of an intense blood-red color. Very early, and also, if sown late, makes a good winter cabbage; of fine quality, and particularly valuable for pickling.

LARGE RED DRUMHEAD (IMPROVED RED DUTCH).

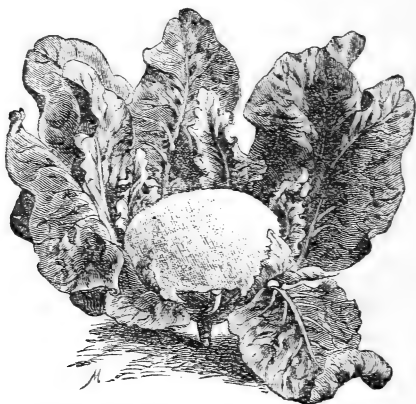
Larger heads than the Red Dutch. Heads round in shape, of deep color, and remarkably hard and solid. Either for pickling or table use there is no better variety of red cabbage.

# VARIETIES OF CAULIFLOWER.

BY W. ATLEE BURPEE.

## EXTRA EARLY DWARF ERFURT.

Remarkable for reliability in heading; scarcely a plant fails to produce a good head. Very dwarf,



EARLIEST DWARF ERFURT CAULIFLOWER.

with solid, pure white heads, of superior quality. If planted the first of March, heads nine to twelve inches in diameter will be ready early in June, in which month the entire crop can be marketed.

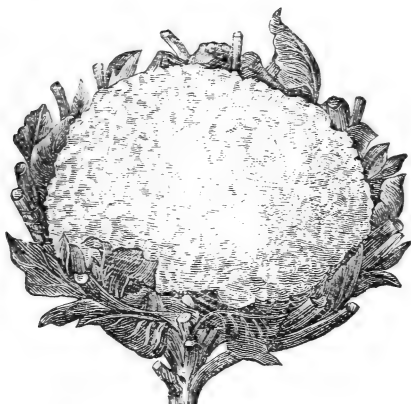
## LARGE EARLY WHITE ERFURT.

An excellent market variety, with large, compact, white heads. We do not consider it so reliable, however, as the preceding.

EXTRA EARLY PARIS AND HALF-EARLY PARIS, OR NONPAREIL, are both good and generally reliable varieties, but of late years have been nearly superseded by the *Selected Erfurt* and *Snowball*.

#### EARLY SNOWBALL.

Very early and reliable in heading. Of dwarf habit, with very short outer leaves, allowing it to be planted close together. We can recommend this variety to gardeners as one of the very best early cauliflowers.

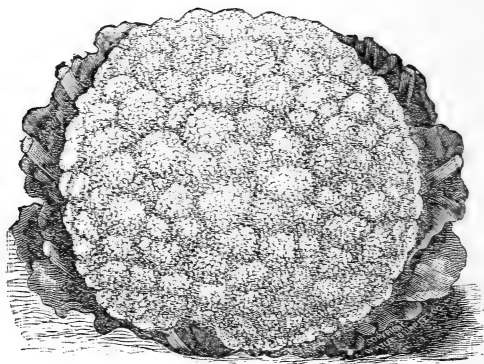


EARLY SNOWBALL CAULIFLOWER.

#### BURPEE'S BEST EARLY CAULIFLOWER.

First introduced by us in 1886, this grand variety is an *improved type* of the *Early Dwarf Erfurt*, which has attained its present perfection after sixteen years' intelligent selection by one grower, and is remarkable both for its *extra earliness* and *certainty to head*—in these two most important features we know no other strain that can

equal it. Of dwarf, compact growth, with short stalk, it bears close planting, and the leaves, growing upright, naturally protect the heads. The large, handsome heads, measuring eight to ten inches across, are pure, snowy white, very close, compact and of the finest quality. So *extremely solid and deep, nearly globe shaped*, are the heads, that they *weigh heavier* than most, if not all other, cauliflowers of the same size. An experienced



BURPEE'S BEST EARLY.

grower of cauliflower writes of *Burpee's Best Early* as follows:—

“ It is extremely short stemmed, has comparatively short leaves (making it especially fit for forcing), while the head is large, smooth, solid and beautifully white. It is equally adapted for growing under glass and in the open ground. By forcing early in spring, and planting out a set of plants every fortnight or so, we can confine our-

selves to this variety alone and yet have a supply as long as it is possible to have cauliflowers. It is of very quick growth, and will yield heads fit for use in about two months after the setting out of the plants."

ALGIERS.

An extra fine variety, is generally sure to head, and one of the best for late use ; the heads remain firm and solid for a long time. This variety is largely grown on Long Island, and heads well even in locations where the Snowball sometimes fails.

VEITSCH'S AUTUMN GIANT.

The heads are beautifully white, large, firm and compact, and being thoroughly protected by the foliage, remain long fit for use.

## CAULIFLOWERS AND CABBAGES.

---

DIRECTIONS FOR COOKING AND PREPARING FOR THE TABLE.

Furnished by Mr. S. J. SOYER, Chief Cook at the Royal Danish Court.

The cauliflower (Lat.: *Brassica oleracea botrytis*; Fr.: Chou-fleur) is one of our most valuable vegetables. It is of a milder, more delicate taste than any other species of cabbage, and of a much greater nutritive value.

### STEWED CAULIFLOWER.

(Cauliflower, butter, salt, sugar,  $2\frac{1}{3}$  oz. of flour, half a pint of cream, one-eighth of the soup from the cauliflower.)

The cauliflower is cut into pieces, boiled slightly in salted water, taken out of the soup and put on a colander to drain. The butter and flour are baked together and thinned with the cream, and about the quantity of the soup above stated. The cauliflower is put into this sauce and again brought to a boil, whereupon it is served warm.

### CAULIFLOWER AU NATUREL.

The stem of white, solid cauliflower heads is cut off, an inch from the head, which with a penknife is well cleaned of the outer hard membrane, taking care to preserve the head as whole as possible; the head is then well rinsed in cold

water, to which is added some vinegar to drive out larvæ or the like; it is then boiled in salt water until it is tender, when it is taken up to drain off on a sieve or colander. It is to be served high on a napkin, with melted butter, common sauce for vegetables, Dutch sauce, velouté or maitre d'hotel sauce.

N. B.—For cauliflowers and vegetables generally the sauce ought to be rather thick, as it is impossible to have the vegetables run perfectly dry when they are to be served warm.

#### CAULIFLOWER WITH BRUSSELS SPROUTS.

(Cauliflower, Brussels sprouts, dotter of egg, butter, a tablespoonful of cream, half a pint of sauce for vegetables, potato puré—that is, bouillon thickened with mashed potatoes and strained.)

Both cauliflower and sprouts are to be well cleaned, boiled separately in salt water and served on the puré, the cauliflower in the center, and the sprouts around it for garnishing. The sauce, to which is added the egg dotters, butter and cream, is poured hot over the cauliflower and sprouts.

#### CAULIFLOWER WITH PARMESAN CHEESE.

*(Choux-fleurs au gratin.)*

(Three cauliflower-heads, salt, pepper, grated bread, two eggs,  $\frac{1}{4}$  lb grated Parmesan cheese,  $\frac{1}{4}$  lb grated Swiss cheese, one pint white sauce.)

The cauliflowers are boiled rare, taken out and drained off. White sauce and spices are boiled

thick, and the egg dotters and cheese mixed with it. The cauliflowers are cut to pieces and put in layers with sauce between, on a dish or silver saucepan, are sprinkled with grated bread and cheese, put fifteen minutes into a hot oven to be browned with a salamander. To be served as an independent dish.

In the place of "white sauce" butter and flour may be baked together and thinned with sweet milk.

CAULIFLOWER A LA LOUIS QUATORZE.

*(Choux-fleurs élevés à la Louis XIV.)*

(Cauliflower, new-made butter, grated nutmeg, bouillon.)

The cauliflower is to be repeatedly washed in lukewarm water, boiled with bouillon and a little nutmeg, drained, and then shaken with the butter over a fire. To be served as soon as the butter is melted. A very fine dish.

CAULIFLOWER WITH OIL-SAUCE.

*(Choux-fleurs en mayonnaise.)*

(Two heads of cauliflower, salt, pepper, sweet oil, estragon, chopped parsley, vinegar, oil-sauce.)

The cauliflowers are to be plucked apart and the stemlets cut off at proper lengths. Boil in water, and salt when nearly done. Drain off and let cool, and then marinate for an hour with oil, vinegar, spices, estragon and parsley. Drain on a sieve. To be served high on a dish and oil sauce gradually to be poured over. If desired, the dish might be garnished with carrots or some other suitable vegetable.



To the preceding directions by Mr. Soyer may properly be added the following :—

#### CAULIFLOWER PICKLES.

Clean and rinse thoroughly large, well developed and pure white cauliflowers. Divide into pieces of proper size ; throw into boiling water ; boil well, and when tender drain off on a sieve ; put into stone jars, not quite full. Simmer for a quarter of an hour cider vinegar enough to fill the jars, adding a little mace, and suspending in the vinegar a bag of sundry spices, to suit your taste. Pour the vinegar, boiling hot, over the cauliflowers, filling the jars to the rim.

Cauliflowers are sometimes used, with fine effect, for garnishing various dishes.

---

### HOW TO COOK AND PREPARE CABBAGE.

---

Lat.: *Brassica oleracea capitata*. Fr.: Chou blanc.

#### BROWNEED CABBAGE HEAD.

(A cabbage head, butter, flour, sugar, salt, spices.)

The outer leaves of the cabbage are removed and the stalk cut out of the head ; the empty space thus made is to be filled with butter, sugar and spices. The cabbage is tied round with twine and baked with butter, in a covered vessel, over a slow fire, until it is tender and yellowish-brown, care to be taken that it does not singe.

When done, the sauce is thickened with a little flour and poured over the cabbage. To be served with a meat dish.

#### STEWED CABBAGE.

The cabbage is cut to pieces, boiled until nearly done, in salt water, and then stewed, the same as cauliflower.

#### CABBAGE WITH FORCED MEAT.

(*Choux Farcis.*)

(A large cabbage head, butter, onion, grated bread, forced meat, bacon, butter-sauce.)

The cabbage head is to be boiled slightly and the stalk cut out. On each leaf is spread a layer of forced meat. The cabbage head is then, as far as possible, given its original shape, tied round with twine, put into a saucepan with slices of bacon, some onion and a little butter, and baked in an oven until yellowish-brown; it is then cut into slices, which are stewed a little while with butter-sauce and grated bread.

If preferred, the cabbage and the forced meat may be put in alternate layers in a pan covered on bottom and sides with thin slices of bacon, and be thus baked in an oven.

#### FILLED CABBAGE.

(*Chou en Surprise.*)

Two hours. (A large cabbage head, twelve roasted chestnuts, six fieldfares—*Turdus pilaris*—six small sausages, bouillon, butter-sauce, one ounce of melted marrow).

The cabbage head is treated as the preceding, a sufficient space being dug out to give room for the fieldfares, sausages and chestnuts. Tie and boil in bouillon. Butter-sauce is prepared, to be mixed with the cabbage soup and the melted and strained marrow. This composed sauce to be boiled into such thickness that it will adhere to the spoon. To be poured over the cabbage when this is to be served.

A more plain preparation of filled cabbage, simply using forced meat, slightly spiced with grated nutmeg or other spices, instead of the fieldfares, etc., and to be served with butter-sauce, is a very popular dish in Denmark.

#### CABBAGE AU GRATIN.

*(Chou au gratin.)*

(Cabbage, grated bread (rye or wheat), white bread, butter, ten or twelve eggs, sausage, lamb's breast and white sauce, bouillon, pepper and meat jelly).

The cabbage is boiled tender with bouillon and a little pepper, drained off, chopped fine and mixed over a fire with six eggs and grated bread until it makes a stiff dough, which is then mixed with fine, thin slices of boiled lamb's breast and sausage. To be made into dome shape, but not high, on a dish, and to be covered with thin slices of white bread overpoured with beaten egg dotters and melted butter, and then baked in a suitably warm oven. When it is to be served, a central

slice of bread on the top is removed and some melted meat jelly poured on.

#### CABBAGE DOLMAS.

(*Dolmas de chou a la turgus.*)

(Cabbage, forced beef or mutton, butter, salt, pepper, rice, bouillon and soya.)

The rice is half boiled with bouillon. The cabbage leaves are separated, the coarse ribs cut away and the leaves slightly boiled, whereupon equal parts of the rice and seasoned forced meats are mixed and a spoonful put on each leaf, which is then rolled firmly together and folded over. These dolmas are set side by side, single layer, in a liberally buttered saucepan, and sprinkled with spices; a little bouillon may be added. To be boiled with short soup and frequently thinned, for two hours. When finished, a little soya is added to the sauce. If desired, the sauce may be thickened with a few egg dotters and flavored with lemon juice.

#### CABBAGE CALLOPS.

Steam-roasted lamb's breast or mutton is cut into small pieces and served in alternate layers with browned cabbage, for which directions are already given. To be poured over with Madeira sauce.

#### SAURKRAUT.

(*Fr. chou croute.*)

Saurkraut is by no means, if rightly made and prepared for the table, the vulgar, appetite-turning article of diet that prejudice has made it. If fair

American readers will oblige the writer of the following directions by giving them a test, if only for curiosity's sake, they will probably find that even saurkraut may be made palatable. It has, besides, advantages over cabbage used in any other way, being more healthful, aiding, by means of its lactic acid, the digestion of meat and albuminous substances. For mariners and other people who, for longer periods, must fare principally on salt meat, it is almost indispensable as a preventive against scorbutic diseases.

#### HOW TO MAKE SAURKRAUT.

The outer leaves and stalks are removed from fine white cabbage heads, which are then cut very fine. For preparation of a larger quantity, a kind of plane is used for shredding the cabbage. A well-cleaned and scalded wooden tub or keg is covered on bottom and sides with leaven or a dough made of rye flour and vinegar. The shredded cabbage is put in layers in this vessel and sprinkled with some salt, caraway seed, barberries and vinegar, each layer; sometimes dill (*Anethum graveolens*) is added. The contents are packed firmly, by the aid of a wooden pestle, until the juice appears from the cabbage. A cover is put on the keg or tub and pressed down by a weight, whereupon the vessel is put in a warm place where the cabbage will ferment and turn sour, generally, in the course of a week or two. The acid formed by the fermentation will prevent any further change of the

cabbage, which will keep for a very long time, after being frozen. If any mold should have formed before the freezing, it must be carefully removed.

#### MAGDEBURG SAURKRAUT.

Solid, white cabbage heads are shredded as above, the longer and finer the shreds, the prettier it is considered. The shredded cabbage is mixed with salt, to taste, about one pound to each fifty pounds of cabbage. Some leaven is put round the edge of the bottom of a keg or barrel in which wine or spirit has been kept, and the cabbage put in and packed firmly, mixing in some green grape stems, if such can be had, whereupon the keg is placed in a warm room for eight days, to cause fermentation. If desired, dill, barberries and caraway seed may be added, the same as above, perhaps, also, a few juniper berries, all mixed with the cabbage. The loose bottom or cover is then put on and fastened, and the keg placed in the cellar, where it is frequently turned upside down; this turning upside down is essential. When cabbage is taken out for use, the cover must be put on again and kept down on the cabbage by a heavy weight.

If it is desired to avoid the trouble of turning the keg, a wooden cock may be applied a few inches from the bottom. After the course of a few days, the pickle that has formed may then be drawn off and poured on the top of the cabbage again. By a repetition of this process, the object

of the turning upside down is attained, which is, to cause a circulation of the pickle (brine) and secure an even distribution of the acid.

## QUICKLY PREPARED SAURKRAUT.

(*Choucroute improvisée.*)

(Cabbage, onion, butter, bouillon, vinegar, sugar, salt, cloves.)

The cabbage is to be cut in long, thin shreds, and to be fried with butter and onion. Bouillon and a couple of cloves are added, and the cabbage, with these ingredients, boiled in short soup until tender.

**NOTE.**—Savoy cabbage is still better for this purpose than the ordinary white cabbage, being finer and milder in taste.

## BROWNEO SAURKRAUT.

(Rinsed and drained saurkraut, butter, flour, bouillon, brown syrup, and pepper-corns.)

The cabbage is browned with butter over a slow fire; bouillon and pepper are added, with which it is boiled till it is tender; after thickening the juice with flour and butter baked together on a frying-pan, and a little brown syrup, it is put to boil again. To be served along with a meat dish, or as an independent course, garnished with Scotch collops, little sausages, etc., like the following.

## STEWED SAURKRAUT.

(Saurkraut, butter, flour, bouillon, chopped browned onion, salt.)

The cabbage is boiled in water, the butter melted, and the flour mixed and baked with it; bouillon is added, when again it is brought to a boil. The cabbage, which in the meantime has been drained off, is put into a saucepan and the sauce poured over it. It is to be well stirred, brought to a boil, the onion and a little salt added, and it is then ready to be served.

NOTE.—The cabbage may also be boiled with some butter and water, and the juice (soup) be thickened with flour and a little good bouillon, spices and sugar to be added to taste. To be served along with pig cutlets, roasted hazel grouse, hare, or the like.

## STEWED SAURKRAUT WITH CREAM.

(Saurkraut, butter, flour, two egg dotters, cream, bouillon, salt, sugar.)

The cabbage is rinsed in cold water, drained, boiled slowly, with butter and a little sugar; and after adding bouillon boiled ready and thickened with baked butter and flour, cream and egg dotters are to be added, after which no boiling must take place. Salt to taste. To be served along with meat dishes.



## STEWED RED CABBAGE.

(Five heads of red cabbage, salt, pepper, a whisk of parsley with a little thyme and sweet bay, a tablespoonful of sugar, two onions, six apples, a quarter of a pint of red wine, a quarter of a pound of butter.)

The exterior leaves and the stalk and thick ribs of the cabbage are removed, and the heads then quartered. The onions and apples are peeled, and the latter cored, and both cut small and then stewed with the cabbage, a piece of butter, sugar, spices, and the whisk of herbs, in a covered saucepan, for four or five hours. When the cabbage is done, the whisk is taken out, and the wine and a piece of butter added. To be served along with meats.

## STEWED SAVOY CABBAGE.

(Savoy cabbage, butter, nutmeg, bouillon, a little sugar, salt.)

The outer leaves are removed, the head cut through and the stalk taken out. The cabbage is then washed, given a boil in salt water, and then drained on a colander, rinsed with boiling water, and pressed dry ; then stewed with butter, bouillon, a little sugar and nutmeg.

Savoy cabbage may, upon the whole, be prepared in the various ways specified for ordinary white head cabbage.

## CAULIFLOWER SOUP.

*(For five persons.)*

( $2\frac{1}{2}$  quarts bouillon,  $1\frac{1}{2}$  pint milk, 2 or 3 cauliflower heads,  $2\frac{1}{2}$  ounces butter,  $1\frac{1}{2}$  ounce flour, sugar, salt.)

The cauliflowers are cleaned and boiled almost ready, taken out and put on a sieve, and the soup is preserved. The butter and flour are baked together, and with the milk, bouillon, sugar and salt added to the decoction from the cauliflowers. These are cut into proper pieces, and put into the soup, which is subjected to a quick boil, and then served with bread dumplings; crumbs of white bread moistened with milk, melted butter, dotter of eggs, and the whites beaten to a stiff froth; the mass rolled into small balls and boiled until they float.

## CABBAGE SOUP.

*(For twelve persons; three hours.)*

( $3\frac{1}{2}$  quarts bouillon, a large cabbage head,  $2\frac{1}{2}$  ounces butter,  $2\frac{1}{2}$  ounces flour, 3 or 4 tablespoonfuls of syrup, a few pepper-corns, Scotch collops, or meat sausages.)

All green leaves and the stalk are removed from the cabbage, which is cut into small pieces to be fried in butter, adding some bouillon and syrup, and boiling slowly, taking care that it does not burn on the bottom. Afterwards, more bouillon and pepper-corns are added, and the boiling kept up until the cabbage is tender. In another saucepan are baked flour and butter, with which the

soup is thickened. To be served with Scotch collops, or with sausages, cut into slices.

For persons with whom the cabbage does not agree, it is advisable to boil the cabbage in water before it is cut to pieces and used.

#### PLAIN CABBAGE SOUP.

*(Very popular in Denmark.)*

Boil fresh, lean bacon, or the back of a pig, and skim until the soup is clear; then put into the boiling soup a quartered or smaller cut cabbage, from which the outer loose leaves and the stalk have been cut away, and boil until meat and cabbage are both very tender. Various vegetables are put in to boil with the cabbage, as fine, sweet carrots, potatoes, leeks, parsnip and parsley root, and some celeriac; salt to taste, and a few peppercorns. The meat and the cabbage soup are to be served together.

This is to many persons a favorite meal, and it is, at the same time, cheap and nourishing.

To improve the taste and increase the digestibility of cabbage, it must always be boiled very tender.



# HOW TO GROW ONIONS,

WITH NOTES ON VARIETIES.

---

An exhaustive treatise, giving in full the prize essay, with the above title, by **Mr. T. Greiner**, of Monmouth County, N. J., also **Onion Growing by Irrigation**, by **Col. C. H. Arlie**, of Lake View, Oregon—carefully edited, with additional notes, including an article on the Growing of Sets, by **W. ATLEE BURPEE**. Besides other matter, it gives complete instructions on all the following subjects:—

Kinds of Soil—Preparation of the Soil—Manures: How, When and What Kinds to Apply—Seed—Sowing the Seed—Rolling—Cultivation—Hand Weeding—The Most Useful Implements—Thinning—Injurious Insects—Harvesting the Crop—How to Market—Storing for Winter—American Varieties of Onions—Italian Varieties—How to Grow, Handle and Store Onion Sets—Onion Growing by Irrigation—General Remarks.

Each subject connected with growing Onions is treated in a plain and practical manner, so that Farmers who have never before raised Onions for market can succeed, while even experienced growers may find facts of interest. **ILLUSTRATED.**

**PRICE, 30 CENTS.** Sent by mail, postpaid, to any address, upon receipt of price. Address

**W. ATLEE BURPEE & CO.,**

**Seed Growers,**

**PHILADELPHIA, PA.**

# ROOT CROPS

—FOR—

## STOCK FEEDING,

### AND HOW TO GROW THEM.

---

**Illustrated. Price 30 Cents, by mail, postpaid.**

---

This treatise has been carefully compiled from the prize essays, with copious additions from our own experience in growing these crops. It treats fully not only on HOW TO GROW, but also HOW TO STORE and HOW TO FEED, with notes on the relative value for stock feeding of the different varieties of Beets, Mangels, Carrots, Parsnips, Turnips and Ruta Bagas. In these days of low prices for cereals and high valuation of land, ROOT CROPS FOR STOCK FEEDING is a subject of the greatest importance to every progressive farmer desirous of making THE FARM PAY A PROFIT.

Sent by mail, postpaid, upon receipt of price.

---

---

## BURPEE'S FARM ANNUAL.

A handsomely illustrated catalogue of the Best Garden, Farm and Flower SEEDS, Bulbs and Plants is published by January 1st of each year and mailed *gratis* to all intending purchasers of seeds. Address

**W. ATLEE BURPEE & CO.,**

SEED GROWERS,

PHILADELPHIA, PA.

BURPEE'S  
**"HOW TO GROW"**  
PRIZE ESSAYS.

---

**How to Grow Melons for Market.**

---

**Illustrated. Price 30 Cents, postpaid, by mail.**

---

Our cash prizes for best essays on this subject were won by Mr. J. E. Rue, Jr., of Littleton, N. C.; Mr. J. T. Rosa, of Waverly Mills, S. C., and special prize for merit by Wm. Bailey, Esq., of Zanesville, Ohio. In order to present the subject to our readers in the most comprehensive and concise manner, we have compiled from these essays and our own experience a treatise that we think will be of value to every melon grower. It treats of both Musk Melons and Watermelons, with full information on the selection of soil, use and application of manures, selection of suitable and profitable varieties, planting the seed, destruction of insects, copious notes on cultivation of the crop, how to grow extra large melons, how and when to gather for market, and how to preserve for late use.

May be had of the Publishers of the Leading Agricultural Papers, or will be sent, postpaid by mail, upon receipt of price, by

**W. ATLEE BURPEE & CO.,**

*Nos. 475 and 477 North Fifth Street,*

*Nos. 476 and 478 York Avenue,*

**PHILADELPHIA, PA.**

JUST PUBLISHED, 1888! A New Book on Gardening:  
**HOW AND WHAT**

**to Grow in a Kitchen Garden**  
**OF ONE ACRE.**

BY E. D. DARLINGTON AND L. M. MOLL.

EDITED BY W. ATLEE BURPEE.

---

FULLY ILLUSTRATED. PRICE, 50 CTS. IN PAPER; 75 CTS. IN CLOTH.

---

This new book will prove very valuable to all engaged in gardening; it gives sound, common-sense views and practical teachings—so plain, that the most inexperienced need not fail—so complete, that even experienced gardeners can read it with pleasure and profit. It is fully illustrated, and enters so thoroughly into details, that it will undoubtedly be warmly welcomed by thousands who inquire every year, **What is the best book on Gardening?** It has been the aim of the authors, and of ourselves, to make this book fill the need so often expressed. Among other subjects its contents embrace Selection of Location—Preparing the Soil—Laying out the Garden to include the various Vegetables and Fruits, and securing to each the Most Suitable Location—Planting and Care of Small Fruits—The Best Varieties of Small Fruits, and Harvesting Same—Directions for Making and Care of Hot Beds—Raising Vegetable Plants—Transplanting—Sowing Seeds—Practical Directions for the Special Cultivation of all Vegetables—Notes on the Merits of the Different Varieties of Vegetables—Manures—Description, Proper Uses and Care of Garden Implements—How to Grow Second Crops to best Economize the Land and Manure—The Winter Storage of Vegetables—The Use and Management of Cold Frames in Winter—Winter Care and Pruning of Small Fruits—Culture of Succulent Roots and Bulbs—Herbs, their Uses and Manner of Growing.

Sent by mail, postpaid, upon receipt of price by the Publishers,

**W. ATLEE BURPEE & CO.,**

**PHILADELPHIA, PA.**



# THE Poultry Yard.

HOW TO FURNISH AND MANAGE IT.

---

By W. ATLEE BURPEE.

---

Full descriptions and large illustrations given of the leading varieties of Land and Water Fowls. It also contains chapters on POULTRY HOUSES, SELECTION AND MATING OF STOCK, WHAT AND HOW TO FEED, GENERAL MANAGEMENT, DRESSING AND SHIPPING POULTRY, EGGS AND CHICKENS, DIRECTIONS FOR CAPONIZING, DISEASES, HOW TO RAISE GOOD TURKEYS, ETC., ETC. Fully Illustrated.


THE NEW EDITION for 1888 contains, besides the above, an illustrated chapter on the training and care of SCOTCH COLLY or SHEPHERD DOGS, also new improved plans of Poultry Houses, with illustration.

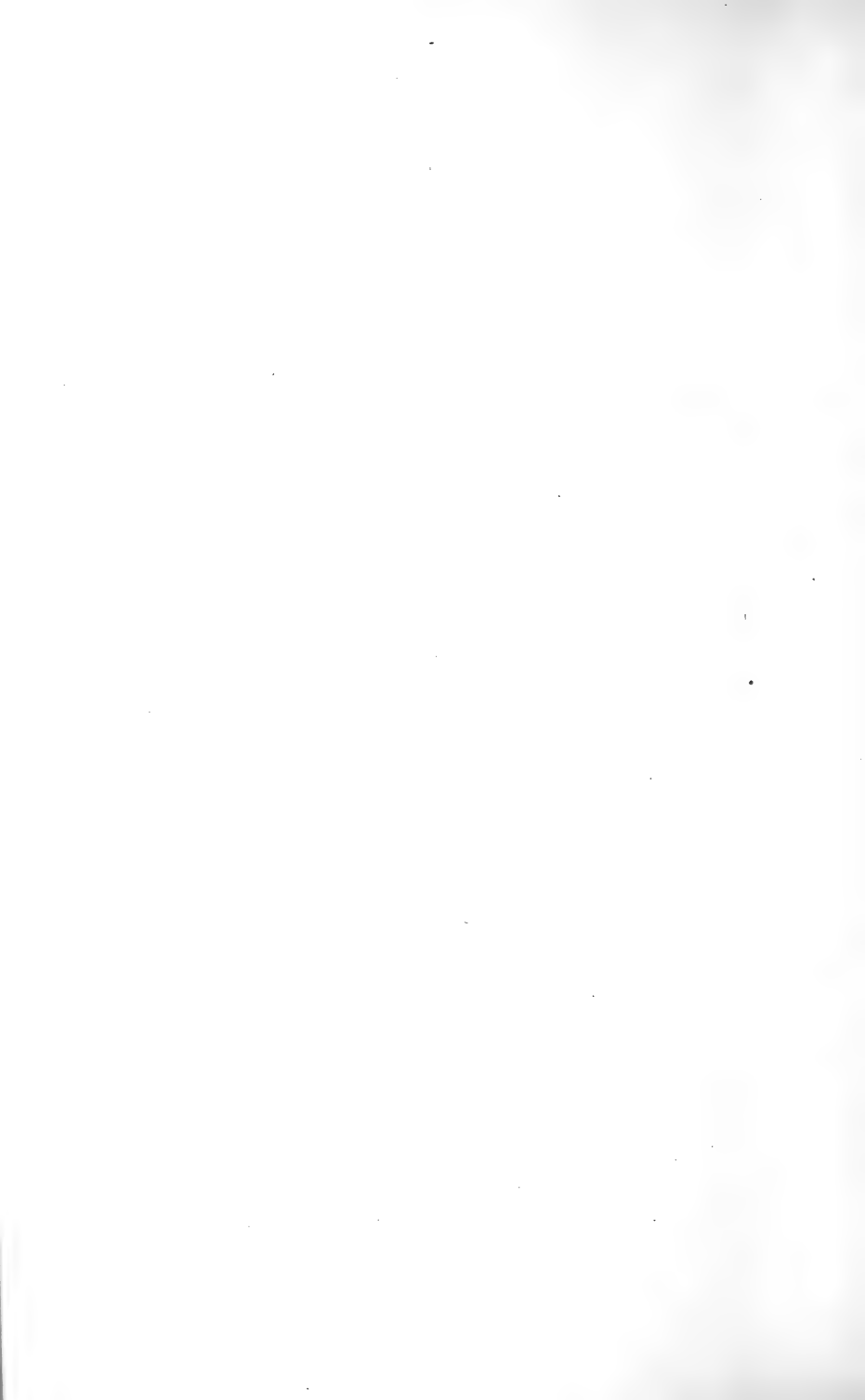
Price, 50 Cts. in paper ; 75 Cts. bound in cloth. Sent, post-paid, by mail, upon receipt of price by the Publishers,

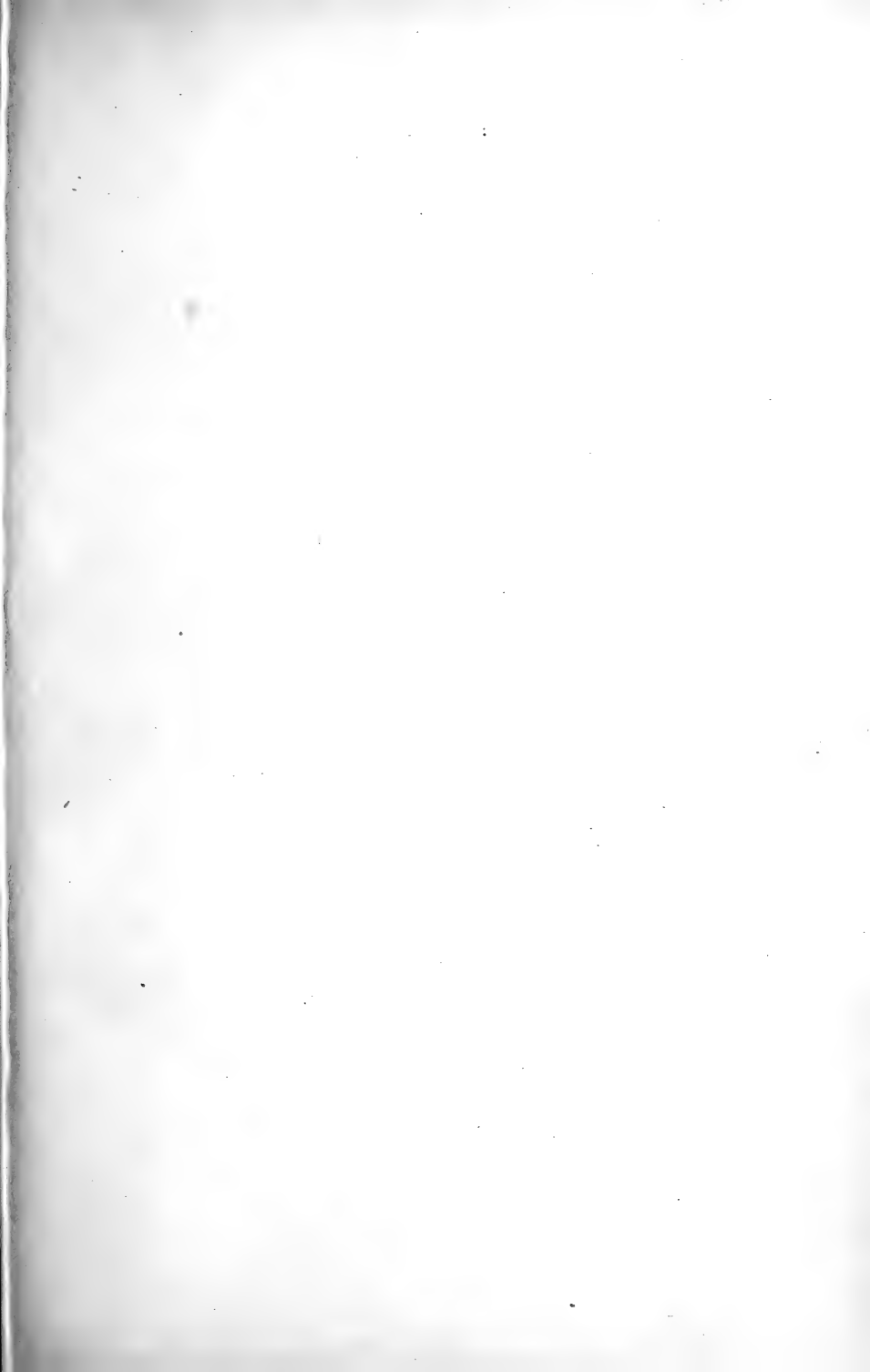
W. ATLEE BURPEE & CO.,  
PHILADELPHIA, PA.,

*and at 133 Cannon St., London, E. C., England.*

---

 BURPEE'S ILLUSTRATED CATALOGUE of THOROUGHbred LIVE STOCK and FANCY POULTRY sent free, on application, to all interested.







PRICE, 30 CENTS.

# HOW TO GROW CABBAGES AND CAULIFLOWERS

MOST PROFITABLY.

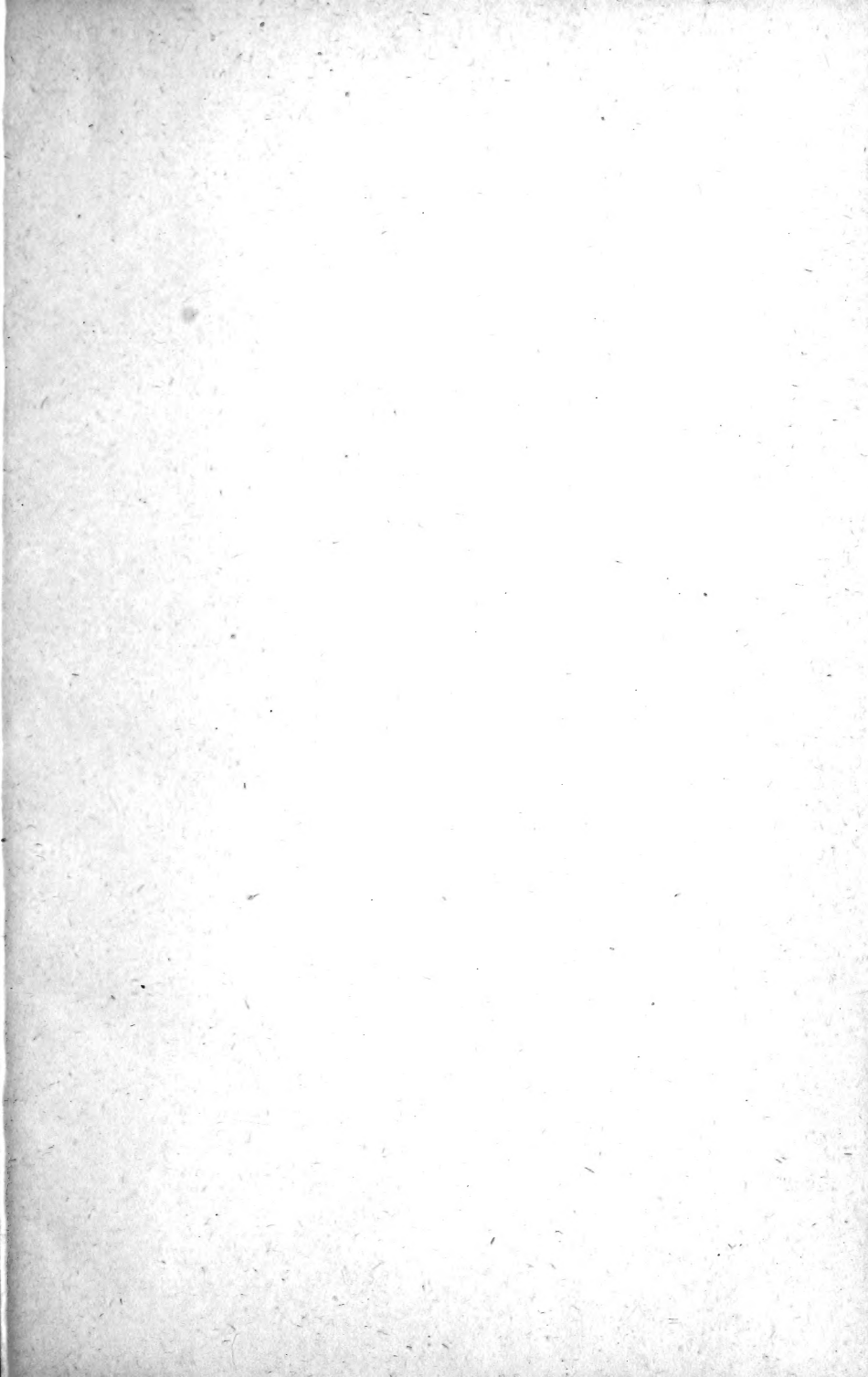
BY  
J. PEDERSEN (BJERGAARD). OF DENMARK.  
AND  
G. H. HOWARD, OF LONG ISLAND.

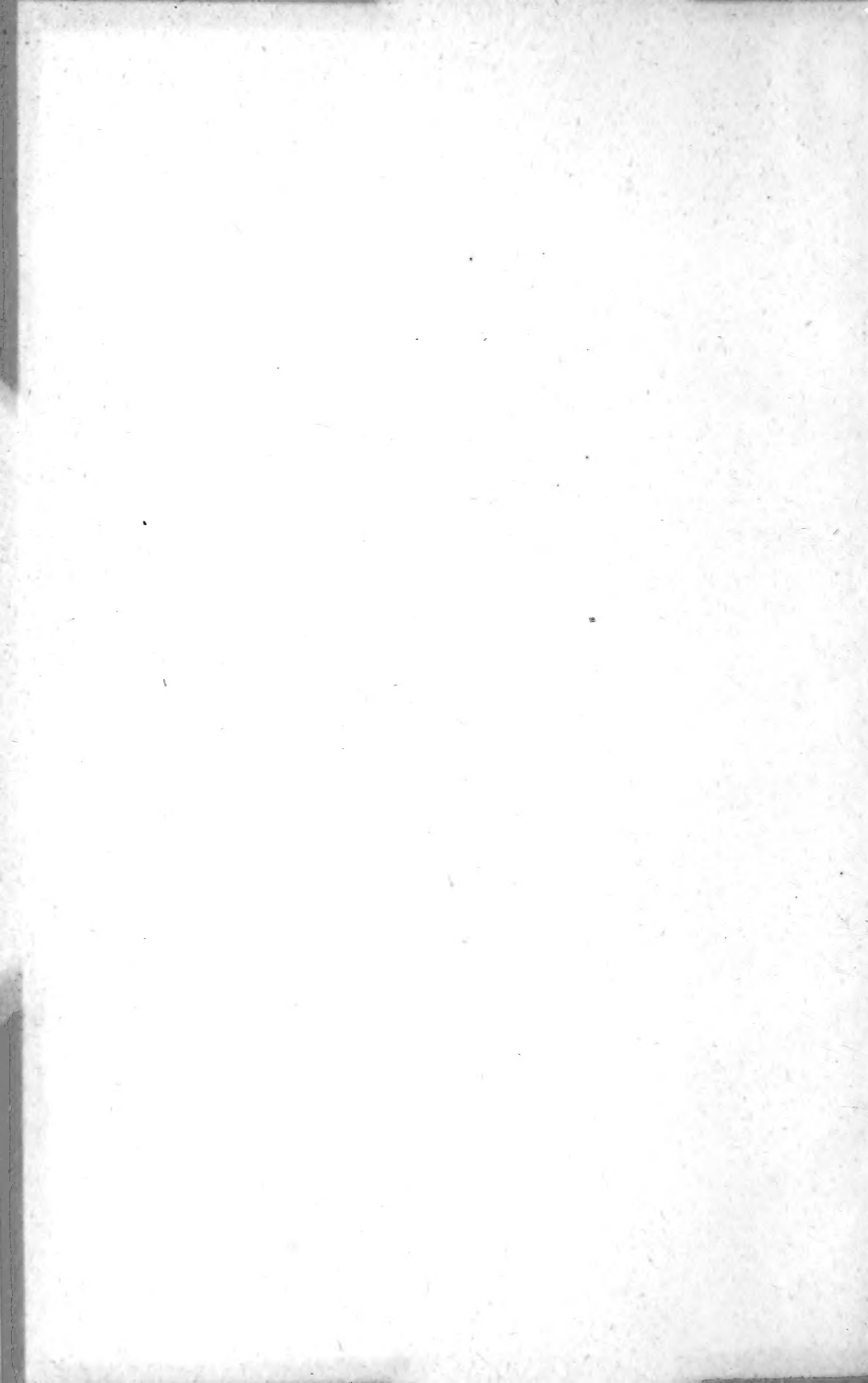
EDITED BY  
W. ATLEE BURPEE.



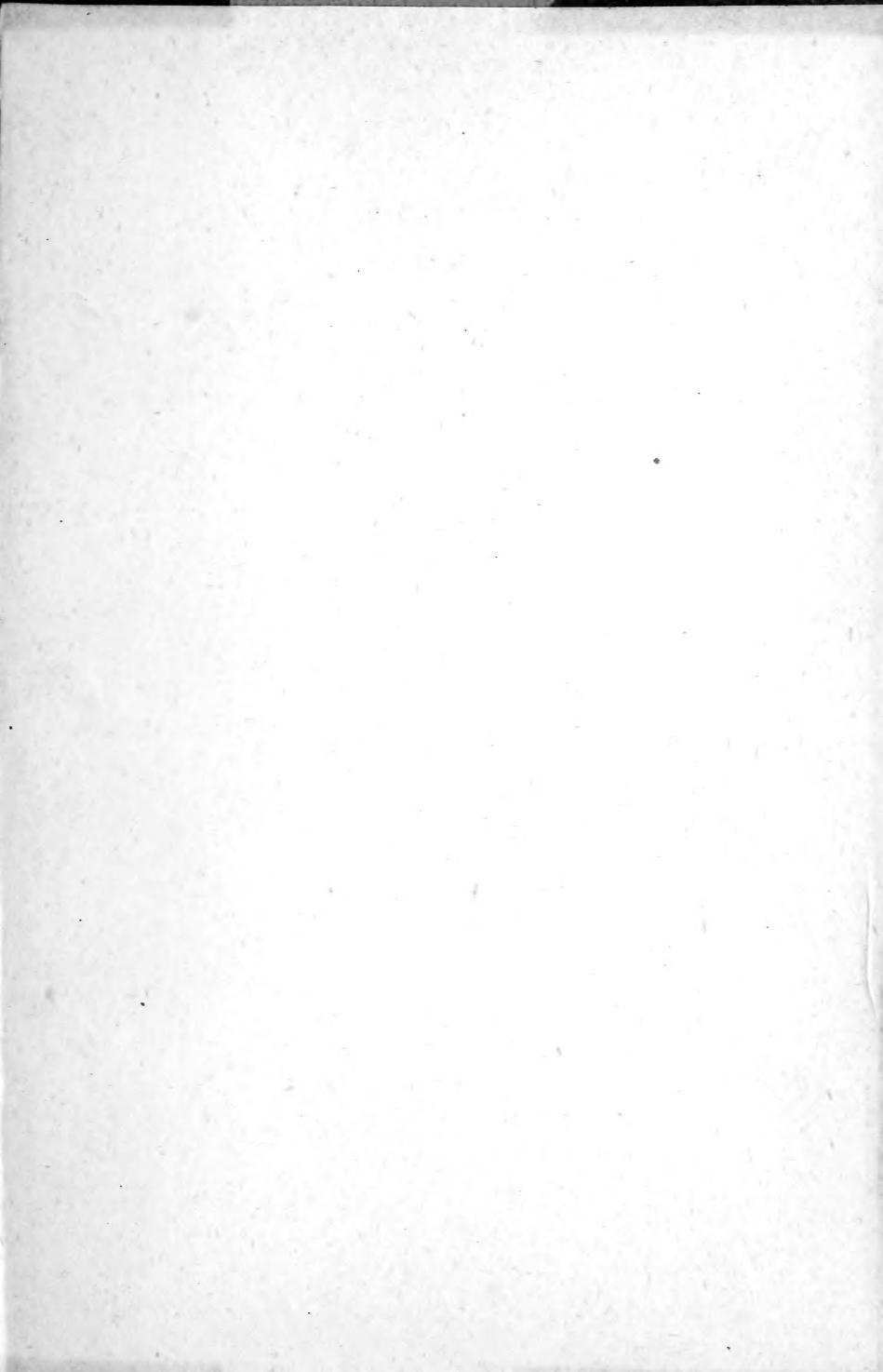
1888.  
PUBLISHED BY  
W. ATLEE BURPEE & CO., SEED GROWERS,  
Nos. 475 AND 477 NORTH FIFTH STREET.  
Nos. 476 AND 478 YORK AVENUE,  
PHILADELPHIA.











LIBRARY OF CONGRESS



00009166841